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Aaq25400 HBV core
Aat05543 Human hep
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Aad1169756 HBV precore/c
Aad47014 HBV (adw)
Aat35649 Precore/c
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Claim 15;
                      Single stranded oligo:nucleotide(s) for inhibiting hepatitis B virus - are anti-sense to portions of tencapsidation sequence and modulate HBV function.
                                                           WPI; 1996-116796/12.
                                                                             Korba
                                                                                                              28-ЛИІ-1994;
                                                                                                                                28-JUL-1995;
                                                                                                                                               08-FEB-1996.
                                                                                                                                                                WO9603152-A1
                                                                                                                                                                                                  treatment; chronic inferelease; host cell; ss.
                                                                                                                                                                                                      Inhibition; replication; hepatitis B virus; HBV; antisense; mRNA; epsilon; encapsidation; sequence; intermediate; subtype ayw; C gene; treatment; chronic infection; modulation; translation; transcription;
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                                                                                            (GEOU ) UNIV GEORGETOWN
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Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence, which inhibits the replication of hepatitis B virus CC (HBV) in a host cell, is a single stranded antisense oligonucleotide that binds the epsilon encapsidation sequence of a mRNA intermediate derived from the HBV genome. The 1st nucleotide of the oligonucleotide CC corresponds to nucleotide 1884 of the HBV ayw subtype C gene, using the CR numbering scheme from the sequence published by Galibert et al. Nature 281: 646 (1979). A compsn. comprising the oligonucleotide may be used to treat chronic HBV infection by modulating a HBV related function, e.g. cranslation, transcription, encapsidation, replication and release from a lost cell. The effect of the oligonucleotide on the levels of HBV DNA in the extracellular medium (VIR. DNA), intracellular viral replicative cintermediates (HBV RN), intracellular viral replicative antigen protein (HBcAg), HBV e antigen protein (HBcAg), HBV e antigen protein (HBcAg), given as the EC(90) (microw, 9 days of treatment) or ND (not determined), are VIR. DNA (1.6), HBV RI (5.1), HBV CR RNA (>20), HBSAg (>20), HBBAg (>20) and HBCAg (18.5)
                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                        Detection and/or genetic analysis of hepatitis B virus - genotype, precore mutations, vaccine escape mutations and mutations selected by treatment with drugs.
                                                                                                                                                                                                                                                                                                                                                                                                   Stuyver L,
                                                                                                                                                                                                                                                                                                                                                    WPI; 1997-535867/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-APR-1996;
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Hepatitis B virus.
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This sequence represents a probe for the preCore region of hepatitis k virus (HBV). This sequence can be used in the method of the invention detection and/or genetic analysis of hepatitis B virus (HBV) in a samp. The method comprises: (a) optionally releasing, isolating or concentrating polymncleic acids (I) in the sample, and amplifying the relevant part of a suitable HBV gene in the sample with at least 1 suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair; (b) hybridising (I) with a combination of at least suitable primer pair (I) with a combination of at least suitable primer pair (I) with a combination of at least suitable primer pair (I) with a combination of at least suitable primer pair (I) with a combination of at least suitable primer pair (I) with a combination of at least suitable primer pair (I) with a combination of at least suitable primer pair (I) with a combination of at least su

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                        New homogeneous prodrug conjugate containing hepatic ligand for delivery of pathogen-specific oligomer useful for treating liver infections or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    homogeneous A-L-P conjugate; hepatic; chronic viral hepatitis; cirrhosis; malaria; viral infection; protozoan; cancer; hepatocellular carcinoma;
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                                                                                                            WPI; 2003-697456/66.
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^^~ various chemical groups as shown in figures"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pregenome.
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                                                                                                                                                                Deamond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 16; DB
Pred. No. 9.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Optionally linked 5"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       phosphorothicate backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             to chemical group
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RESULT 4
ACD55710/c
ID S710/c
ID ACD557
IX ACD567
IX ACD667
IX ACC67
IX ACC
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Best Local S
Matches 16
                                                                                   Blatt L, P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the conjugate by hydrolysis or reduction. The conjugate of the invention may be useful during the treatment of liver diseases including chronic viral hepatitis, cirrhosis, malaria, viral or protozoan infection and cancer, such as hepatocellular carcinoma (HCC). The current sequence is that of the NG3 AL-P conjugate DNA component of the invention which was used to target the Hepatitis B virus (HBV) pregnance (A Cirl)
                                                                                                                                                                                                                                                                                                                                                                                                                   08-JUN-2001;
08-JUN-2001;
24-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV; RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 degenerative; disease state; HBV infection; HCV infection; cirrhos liver failure; hepatocellular carcinoma; hepatotropic; cytostatic; virucide; antiinflammatory; substrate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
HBV reverse transcriptase; Enhancer I region; viral rep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 16
                                                                                                                                                                                                                                                                                                (RIBO-)
(BLAT/)
(MACE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAR-2002; 2002WO-US009187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200281494-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HBV amberzyme substrate sequence #183.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACD55710;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACD55710 standard; RNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel homogeneous conjugate comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                             WPI; 2003-229207/22
                                                                                                                                                                                                                                                                                                                                                                                             05-DEC-2001;
                                                                                                                                                                                                                                                        MORR/
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                                                                                                                                                                                                                                                     MACEJAK D.
MCSWIGGEN J.
MORRISSEY D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                             DRAPER K. ROBERTS E.
                                                                                                                                                                                                          PAVCO
LEE P.
                                                                                                                                                                                                                                                                                                                        RIBOZYME PHARM BLATT L.
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                                                                                          Macejak D,
Roberts E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP;
                                                                                                                                                                                                                                                                                                                                                                                                                ; 2001US-00817879.
; 2001US-00877478.
; 2001US-0296876P.
; 2001US-0335059P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                             2001US-0337055P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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100.0%; Pr
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                                                                                                                  Mcswiggen
                                                                                                                                                                                                                                                                                                                                                     INC
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Pred. No. 9.5
); Mismatches
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                                                                                                                    Morrissey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9.5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                    Pavco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           replication;
                                                                                                                    ָס,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cirrhosis,
                                                                                                                    Lee
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Novel compound useful for treating cirrhosis,

liver failure

hepatocellular carcinoma,

or condition associated with hepatitis C virus

1; Page

English

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ACD53930/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to nucleic acid molecules which modulate CC the synthesis, expression and/or stability of Hepatitis C virus (HCV) or CC Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense CC and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes, CC inozymes, zinzymes, amberzymes, and G-cleaver ribozymes, Also disclosed CC are nucleic acid decoy molecules and aptamers that bind to HBV reverse CC inozymes, Also disclosed compounds and/or HBV reverse transcriptase primer sequences, as well cas oligonuclectides that specifically bind the Enhancer I region of HBV CC genes and HBV viral replication. Also disclosed is a method for screening compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or replication of HCV. The compounds and CC methods of the invention are useful for the treatment of degenerative and disease states related to HBV and HCV infection, replication and gene carcinoma. The present sequence represents a substrate for one of the HBV cribozyme, inozyme, G-cleaver, zinzyme, DNAzyme or amberzyme sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 16
                                                                                   26-MAR-2001; 2001US-00817879.
08-JUN-2001; 2001US-00877478.
08-JUN-2001; 2001US-0296876P.
24-OCT-2001; 2001US-0335059P.
05-DEC-2001; 2001US-0337055P.
                                                                                                                                                                                                                                                                                                    amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
HBV reverse transcriptase; Enhancer I region; viral replication;
degenerative; disease state; HBV infection; HCV infection; cirrh
liver failure; hepatocellular carcinoma; hepatotropic; cytostati
                 (MACE/)
                                              (RIBO-)
(BLAT/)
                                                                                                                                                                             26-MAR-2002;
                                                                                                                                                                                                                                                                   Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                               RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                            HBV zinzyme substrate
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BLATT L.
MACEJAK D.
MCSWIGGEN J.
MORRISSEY D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17
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                                                          RIBOZYME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16; Conser
                                                                                                                                                                                                                                                                                                                                                                                         acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                            antiinflammatory; substrate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     inozyme, G-clea in the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
Conservative (
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                                                                                                                                                                           2002WO-US009187
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                          PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 C; 7 G;
                                                                                                                                                                                                                                                                                                                                                                                                                            sequence #100.
                                                          INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0 T; 7 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0 Other;
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                                                                                                                                                                                                                                                                                                        cytostatic,
                                                                                                                                                                                                                                                                                                                     cirrhosis;
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Sequence 17

BP; 0 A; 3 C; 7 G;

0 T;

7

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Other;

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The present invention relates to nucleic acid molecules which modulate C the synthesis, expression and/or stability of Hepatitis C virus (HCV) or CC Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense condensation and or the synthesis is a virus (HBV) and the color of the patitis B virus (HBV) RNA. The nucleic acid molecules include antisense concerning the synthesis and color of the very molecules and G-cleaver ribozymes. Also disclosed convertibles and/or HBV reverse transcriptase primer sequences, as well consolidate that specifically bind the Enhancer I region of HBV compounds and HBV viral replication. Also disclosed is a method for screening compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or replication of HCV. The compounds and contracted the expression such as cirrhosis, liver faction, replication and gene carcinoma. The present sequence represents a substrate for one of the HBV cribozyme, inozyme, G-cleaver, zinzyme, DNAzyme or amberzyme sequences contained contracted against the transcription and gene carcinoma. The present sequence represents a substrate for one of the HBV contracted against the HBV compounds and the present sequence represents a substrate for one of the HBV contracted and contracted contracted and contracted contracted contracted and contracted c
                                                       disclosed
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(LEEP/)
(DRAP/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Page 175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel compound useful for hepatocellular carcinoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-229207/22
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LEE P.
DRAPER K.
ROBERTS E.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Macejak D,
Roberts E;
                                                    the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      387pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mcswiggen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating cirrhosis, liver failure, or condition associated with hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English
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RESULT 6
ADM59621/c
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14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
                                                                                                                           Hepatitis B virus; HBV; ss; enzymatic nucleic acid; RNA cleavage; hepatitis B virus infection; hepatitis; hepatocellular carcinoma; cirrhosis; liver failure; lamivudine; interferon; genetic drift;
                                                                                                                                                                    Hepatitis B virus
                                            15-JAN-2003;
                                                                18-MAR-2004
                                                                                                    Hepatitis B virus.
                                                                                                                    virucide; hepatotropic;
                                                                                                                                                                                        03-JUN-2004
                                                                                                                                                                                                           ADM59621;
                                                                                                                                                                                                                           ADM59621
                                                                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                        AAAGCCACCCAAGGCA
                                                                                                                                                                                                                                                                                                            100.0%;
ilarity 100.0%;
Conservative
                                            2003US-00342902
                                                                                                                                                                                     (first entry)
        92US-00882712.
94US-00193627.
99US-00436430.
                                                                                                                                                                    (HBV)
                                                                                                                                                                                                                           RNA; 17
                                                                                                                     antiinflammatory;
                                                                                                                                                                 RNA target sequence #1755
                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                          Score 16; DB
Pred. No. 9.5
); Mismatches
                                                                                                                                                                                                                                                                                                                     9.5;
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                                                                                                                                                                                                                                                                                                           0;
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RESULT 7
ADM60244/c
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Best Local S
Matches 16
14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
09-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to an enzymatic nucleic acid molecule that specifically cleaves RNA derived from hepatitis B virus (HBV) and comprising one or more binding arms, without requiring the presence of a 2'-OH group within the molecule for activity. The nucleic acids are useful for treating hepatitis B virus infection, hepatitis, hepatocellular carcinoma, cirrhosis and liver failure, either alone or in combination with other therapies such as lamivudine and interferons. The nucleic acids are useful as diagnostic tools to examine genetic drift and mutations within diseased cells, for detecting the presence of HBV RNA in a cell, for the study of RNA and for down-regulating gene expression of target genes in bacterial, fungal, viral, plant or mammalian cells. This sequence represents an HBV RNA target sequence, used in the scope of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                        Hepatitis B virus; HBV; ss; enzymatic nucleic acid; RNA cleavage; hepatitis B virus infection; hepatitis; hepatocellular carcinoma; cirrhosis; liver failure; lamivudine; interferon; genetic drift; virucide; hepatotropic; antiinflammatory; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel enzymatic nucleic acid molecule such as DNAzymes and inozymes specifically cleaving RNA derived from hepatitis B virus and comprising one or more binding arms, useful for treating hepatitis and cirrhosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-AUG-2000; 2000US-00636385.
24-OCT-2000; 2000US-00696347.
08-JUN-2001; 2001US-00877478.
                                                                                                                    18-MAR-2004
                                                                                                                                               US2004054156-A1
                                                                                                                                                                                                                                                                                                             03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                     ADM60244 standard; RNA; 17 BP
                                                                                       15-JAN-2003;
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BLATT L.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGCCACCCAAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGCCACCCAAGGCA 16
                                                                                                                                                                            B virus
                                                                                                                                                                                                                                                                                B virus (HBV) RNA target sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Blatt L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ
92US-00882712.
94US-00193627.
99US-00436430.
2000US-00531025.
2000US-00636385.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP; 0 A;
                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                       2003US-00342902
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 C; 7 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mcswiggen JA,
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Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0 T; 7 U;
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RESULT 8
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Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          comprising one or more binding arms, without requiring the presence of a 2'-OH group within the molecule for activity. The nucleic acids are useful for treating hepatitis B virus infection, hepatitis, hepaticellular carcinoma, cirrhosis and liver failure, either alone or in combination with other therapies such as lamivudine and interferons. The nucleic acids are useful as diagnostic tools to examine genetic drift and mutations within diseased cells, for detecting the presence of HBV RNA in a cell, for the study of RNA and for down-regulating gene expression of target genes in bacterial, fungal, viral, plant or mammalian cells. This sequence represents an HBV RNA target sequence, used in the scope of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at seqdata.uspto.gov/sequence.html.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel enzymatic nucleic acid molecule such as DNAzymes and inozymes specifically cleaving RNA derived from hepatitis B virus and comprising one or more binding arms, useful for treating hepatitis and cirrhosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to an enzymatic nucleic acid molecule that specifically cleaves RNA derived from hepatitis B virus (HBV) and
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(MCSW/)
(MORR/)
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08-JUN-2001; 2001US-00877478.
                                                    19-DEC-1996.
                                                                                                                                                                         misc_difference
                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                             HBV; ligase
                                                                                                                                                                                                                                                                        Hepatitis B
                                                                                                                                                                                                                                                                                                   29-AUG-1997
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                                                                                                                                                                                                                                                                                                                                                         AAT71786 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 2378; 122pp; English
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                                                                               WO9640996-A1
                                                                                                                                 misc_difference
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) MCSWIGGEN J
) MORRISSEY D.
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                                                                                                                                    /note=
18
                                                                                                                                                                                        Location/Qualifiers
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                                                                                                           /note=
                                                                                                                      /*tag=
                                                                                                                                                                                                                                               reaction;
                                                                                                                                                                                                                                                                         precore
                                                                                                                                                                                                                                                                                                                                                         DNA; 18
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                                                                                                         "Haptenated with fluoroscein"
                                                                                                                                                "Phosphorylated
                                                                                                                       σ
                                                                                                                                                                                                                                                                        antigen wild-type target sequence
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                                                                                                                                                                                                                                              internal standard; amplification; ss.
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Pred. No.
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9.5;
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07-JUN-1995; 03-JUN-1996;

96WO-US008429 95US-00480220

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RESULT 9
AAV14133
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Best Local
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                               Detection genotype, mutations
          Claim 5;
                                                                                                                                                                                                                                                                     preCore region; HBsAg region; genotype specific target; mutation detection; ss.
                                                                            WPI; 1997-535867/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction, and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen wild type target sequence (AAT71783). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA
                                                                                                   Stuyver L,
                                                                                                                                                                    21-APR-1997;
                                                                                                                                                                                                                                       Synthetic.
Hepatitis B virus.
                                                                                                                         (INNO-) INNOGENETICS
                                                                                                                                                19-APR-1996;
                                                                                                                                                                                             30-OCT-1997.
                                                                                                                                                                                                                    WO9740193-A2.
                                                                                                                                                                                                                                                                                                                     Probe HBPr49 for preCore region of HBV
                                                                                                                                                                                                                                                                                                                                             27-AUG-2003
19-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                AAV14133;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Quantitative detection of target nucleic acid sequence, esp. hepatitis B virus - can distinguish wild-type and mutant DNA types.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1997-052367/05
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AAAGCCACCCAAGGCA 16
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      Page 27; 80pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                             and/or genetic analysis of preCore mutations, vaccine selected by treatment with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 29;
                                                                                                Rossau R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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(first entry)
                                                                                                                                               96EP-00870053
                                                                                                                                                                    97WO-EP002002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; 7 C; 3 G; 0 T; 0 U; 0 Other;
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Pred. No. 9.
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                             hepatitis B virus - e escape mutations and drugs.
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BD
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                                     specifically RT gene
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RESULT 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC This sequence represents a probe for the preCore region of hepatitis b CC virus (HBV). This sequence can be used in the method of the invention for detection and/or genetic analysis of hepatitis B virus (HBV) in a sample. The method comprises: (a) optionally releasing, isolating or concentrating polynucleic acids (I) in the sample, and amplifying the CC concentrating polynucleic acids (I) in the sample with at least 1 cc suitable primer pair; (b) hybridising (I) with a combination of at least 2 nucleotide probes, which are applied to known locations on a solid CC support and hybridise specifically to mutant target sequences chosen from CC the HBV RT pol gene region, HBV preCore region, HBSAg region and/or HBV CC genotype specific target sequences, or their complements or U for T CC the HBV genotype and/or mutants present in the sample from the HBV genotype and/or mutants present in the sample from the CC diagnose and/or monitor HBV mutants and/or genotypes in a sample, CC specifically genotype, precore mutants and/or secone secape mutations and RT gene mutations selected by treatment with drugs, e.g. lamivudune and cc gene mutations selected by treatment with drugs, e.g. lamivudune and vor the composition of the law precore mutations correct OS field.)
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                                                                                                        Quantitative detection of target nucleic acid sequence, virus - can distinguish wild-type and mutant DNA types.
                                                                                Claim 14; Page 29;
                                                                                                                                                       WPI; 1997-052367/05
                                                                                                                                                                                  Birkenmeyer L,
                                                                                                                                                                                                                                          07-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                    misc_difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                      HBV; ligase chain reaction; internal standard; amplification; ss
                                                                                                                                                                                                               (ABBO ) ABBOTT
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                                                                                                                                                                                                                                           95US-00480220
                                                                                                                                                                                                                                                                     96WO-US008429
                                                                                                                                                                                  Mushahwar
                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                        /note= "Haptenated with fluoroscein"
                                                                                                                                                                                                                                                                                                                                                                      /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                precore antigen wild-type target sequence primer.
                                                                                40pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                              English.
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Pred. No.
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                                                                                                                     esp.
                                                                                                                     hepatitis
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A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction; and determining the ratio of target amplification products to internal standard amplification products present in the

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RESULT 11
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Best Local S
Matches 16
Query Match
Best Local S
Matches 16
                                                                                               A novel method has been produced for detecting the amount of a target nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction; and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen mutant target sequence (ATT1784). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA mutant. The compositions can be used for quantitatively detecting the DNA mutant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sample. The present sequence represents a primer/target specific probe for the hepatitis B virus (HBV) precore antigen wild-type target sequence (AAT71783). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA of HBV
                                                                                                                                                                                                                                                                                        Quantitative detection of target nucleic acid sequence, virus - can distinguish wild-type and mutant DNA types.
                                                                                                                                                                                                                                                                                                                                                                Birkenmeyer L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 19
                                                        Sequence 19
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                                                                                                                                                                                                                                                                                                                                                                                             (ABBO ) ABBOTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HBV; ligase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT71789;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAT71789
                                                                                                                                                                                                                                                              14; Page 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l Similarity
16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGCCACCCAAGGCA 16
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100.0%; ilarity 100.0%; Conservative 0
                                                        BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chain reaction; internal standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         virus precore antigen mutant target sequence primer.
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                                                        -
                                                                                                                                                                                                                                                                                                                                                                Mushahwar IK;
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                                                        Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۶,
                                                                                                                                                                                                                                                              40pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                        3 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         w
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Haptenated with fluorescein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
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                                                        7 G; 8
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Score 16; DE
Pred. No. 9.5
0; Mismatches
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T;
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                                                        T; 0 U; 0 Other;
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U;
          1.5;
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                           2; Length 19,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amplification; ss
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                                                                                                                                                                                                                                                                                                        hepatitis
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l Similarity 16; Conserv

<u>.</u>

0

Indels

0

Gaps

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RESULT 12
ADM00160/c
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24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
26-MAR-2002;
06-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-NOV-1999;
20-MAR-2000;
09-AUG-2000;
24-OCT-2000;
08-JUN-2001;
          that down-regulates expression of a hepatitis B virus (HBV) gene by RNA interference or that inhibite HBV replication. Also disclosed are the following: (i) a method of modulating the expression of a HBV gene in a tissue explant; (ii) a method of generating a library of sinA constructs having predetermined complexity; (ii) a cell containing one or more sinA molecules; (iv) a kit containing a sinA molecule which can be used to modulate the expression of a HBV target gene in a cell, tissue or more sinA molecule; (iv) a kit containing a sinA molecule which can be used to modulate the expression of a HBV target gene in a cell, tissue or more sinA molecule is adapted for use to treat HBV infection, and comprises sequence and an antisense region, where the antisense region comprises sequence complementary to an RNA sequence encoding HBV and the sense region of the sinA comprises region.
                                                                                                                                                                                                                                                                                                                                                                                                                   06-JUN-2002;
29-AUG-2002;
05-SEP-2002;
09-SEP-2002;
                                                                                                                                                                                                                                           New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Virucide; Hepatotropic; Gene therapy; ss; short interfering nucleic siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-MAY-1992;
07-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADM00160 standard; RNA; 19
    comprises sequence
                                                                                                                                                                        The invention relates to a short interfering nucleic acid (siNA)
                                                                                                                                                                                                    Claim 11;
                                                                                                                                                                                                                             characterizing
                                                                                                                                                                                                                                                                                                      WPI; 2003-901032/82.
                                                                                                                                                                                                                                                                                                                                Morrissey D,
                                                                                                                                                                                                                                                                                                                                                                           (MORR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-NOV-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hepatitis B virus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADM00160;
                                                                                                                                                                                                                                                                                                                                                             (BEIG/)
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                                                                                                                                                                                                                                                                                                                                                          ) MORRISSEY D.
) MCSWIGGEN J A.
) BEIGELMAN L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGCCACCCAAGGCA
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                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-00531025
2000US-00636385
2000US-00696347
2001US-00877478
2001US-00877478
2001US-0335059P
2001US-0337055P
2002US-03581840P
2002US-03631248
2002US-03631248
2002US-03631249
2002US-03631249
2002US-0406784P
2002US-0406784P
2002US-0406784P
2002US-0406784P
2002US-0406784P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        virus short interfering nucleic acid (siNA) #576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002US-00244647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                Mcswiggen
                                                                                                                                                                                                   48; 72pp; English
                                                                                                                                                                                                                               gene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92US-00882712
94US-00193627
    complementary to the antisense region.
                                                                                                                                                                                                                                                                                                                                 JA,
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                                                                                                                                                                         molecule
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New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for characterizing gene function.

WPI; 2003-901032/82.

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RESULT 13
ADM00806
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CC comprises the sense region and the second fragment comprises the contisense region of the siNA molecule, where sense region and the econd fragment comprises the contisense region comprise separate oligonuclectides, and are covalently connected via a linker molecule. The linker molecule is a polynuclectide linker or a non-nucleotide linker. The sense region comprises a 3'-cc terminal overhang and the antisense region comprises a 3'-terminal coverhang. The 3'-terminal overhangs each comprise about 2 nucleotides. CC the antisense region 3'-terminal overhang is complementary to RNA cc encoding HBV. The siNA is useful for tracting human hepatitis B virus cinfections, and for characterising pathways to determine the function comprised and contisted genes in gene function analysis. The siNA molecules complementary to used in clinical, industrial, environmental, agricultural cc and/or research settings. The present sequence represents 1 of 1504 HBV vv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 16
                                                                                                                                                              08-JUN-2001;
24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
                                                                                                                                                                                                                                    08-NOV-1999; 99US-VVIII

20-MAR-2000; 2000US-00531025.

20-ALG-2000; 2000US-00636385.

24-OCT-2000; 2000US-00696347.
                                                                                                                         06-JUN-2002;
29-AUG-2002;
                                                                                                                                                                                                                                                                                                         14-MAY-1992;
07-FEB-1994;
                                        (BEIG/)
                                                                                                                                                     26-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                   16-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                               06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                        US2003206887-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Virucide; Hepatotropic; Gene therapy; 88; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hepatitis B virus short interfering nucleic acid (siNA) #1222
                                                                                                                                                                                                                                                                                                                                                                                                                                    Hepatitis B virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADM00806;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 19 BP; 0 A; 3 C; 9 G; 0 T; 7 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       molecule is assembled from 2 nucleic acid fragments, where one fragment
                                     ) MORRISSEY D.
) MCSWIGGEN J A.
) BEIGELMAN L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                      2001US-00877478
2001US-0296876P
2001US-0335059P
2001US-0337055P
2002US-0358580P
2002US-0363124P
2002US-0363124P
2002US-0386782P
2002US-04067848P
2002US-0406784P
2002US-0406784P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                 2002US-00244647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                         92US-00882712.
94US-00193627.
99US-00436430.
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Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 11; Length 19;
9.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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that down-regulates expression of a hepatitis B virus (HBN) gene by RNA collowing: (i) a method of modulating the expression of a HBV gene by RNA collowing: (i) a method of modulating the expression of a HBV gene in a collowing: (ii) a method of generating a library of siNA constructs that insue explaint; (ii)) a method of generating a library of siNA constructs complexity; (iii) a cell containing one or more siNA constructs modulate the expression of a HBV target gene in a cell, tissue or complementary to an RNA sequence encoding HBV infection, and comprises sequence complementary to an RNA sequence encoding HBV and the sense region comprises sequence complementary to the antisense region. The siNA comprises the sense region and the second fragment ownerses the constituence region and the second fragment comprises the sense region and the second fragment comprises the conscited via a linker molecule, where sense region and the conscited via a linker molecule. The linker molecule is a polymucleotide comprises the non-nucleotide linker. The sense region comprises a 3'-terminal overhang and the antisense region comprises a 3'-terminal coverhang. The 3'-terminal overhang seach comprises a 3'-terminal coverhang. The siNA is useful for treating human hepatitis B virus infections, and for characterising pathways of gene function, e.g. to complise the sing sense region comprises a singene function analysis. The siNA molecules of the invention analysis. The siNA molecules of the invention analysis. The siNA molecules of the invention analysis. The siNA molecules of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a short interfering nucleic acid (siNA) molecule
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
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Matches Query Match Best Local Similarity Sequence 19 BP; 7 A; 9 C; 3 G; 0 T; 0 U; 0 Other; 16; 1 AAAGCCACCCAAGGCA 16 Conservative 100.0%; 0 Score 16; DB 11; Length 19; Pred. No. 9.5; Mismatches 0 Indels 0; Gaps

0,

밁 S

4

AAAGCCACCCAAGGCA 19

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RESULT 14
ADM00807
  14-MAY-1992;
07-FEB-1994;
                                                                                                            Virucide; Hepatotropic; Gene therapy; ss; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                             16-SEP-2002; 2002US-00244647
                                                                      US2003206887-A1
                                                                                                                                       Hepatitis B virus short interfering nucleic acid (siNA) #1223.
                                                                                                                                                             20-MAY-2004 (first entry)
                                                  06-NOV-2003
                                                                                          Hepatitis B virus.
                                                                                                                                                                                                       ADM00807 standard; RNA; 19
                                                                                                                                                                                     ADM00807;
92US-00882712
94US-00193627
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Morrissey D,

Mcswiggen JA,

Beigelman

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acid;

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CC The invention relates to a short intertring incleated to that down-regulates expression of a hepatitis B virus (HBV) gene by RNA following: (i) a method of modulating the expression of a HBV gene in a CC tissue explant; (ii) a method of generating a library of siMA constructs thaving predetermined complexity; (iii) a cell containing one or more siMA cc modulate the expression of a HBV target gene in a cell containing one or more siMA containing, and (v) a kit containing a siMA molecule which can be used to companism; and (v) a method for synthesising a siMA molecule. The siMA containing an antisense region, where the antisense region, and comprises a sense complementary to an RNA sequence encoding HBV and the sense region comprises sequence complementary to the antisense region. The siMA comprises sequence complementary to the antisense region. The siMA comprises sequence complementary to the antisense region and the sense region and the activity of the siMA molecule, where sense region and the connected via a linker molecule. The linker molecule is a polynucleotide linker or a non-nucleotide linker. The sense region comprises a 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region and the antisense region comprises a 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region and the sense region comprises a 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region and the sense region comprises a 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region and the antisense region comprises a 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region to the sense region comprises about 2 nucleotides. The antisense region comprises about 2 nucleotides. The antisense region comprises about 2 nucleotides. The antisense region comprises and are region comprises and are region comprises and are region comprises. The siMA molecules and of the sense region comprises are sense region comprises are sense region compris
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                                                                                                                                                                     Matches
                                                                                                                          Query Match
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20-MAR-2000;
09-AUG-2000;
24-OCT-2000;
08-JUN-2001;
08-JUN-2001;
08-JUN-2001;
09-DEC-2001;
20-EBB-2002;
11-MAR-2002;
26-MAR-2002;
29-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                                                                                                  Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a short interfering nucleic acid (siNA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 11; Page 48; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      characterizing gene function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-901032/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Morrissey D,
                                                                                                                                                                                                           /or research settings. The present sequence represents A molecules of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) MORRISSEY D.
) MCSWIGGEN J A.
) BEIGELMAN L.
                                                                                  16;
N
                                                                                                    Similarity
                                        AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-00436430.
2000US-00535185;
2000US-005635185;
2000US-00696347.
2001US-00896347.
2001US-0396976;
2001US-03350596;
2001US-03370558,
2002US-033512496;
2002US-036312496;
2002US-036312496;
2002US-036312496;
2002US-036312496;
2002US-036312496;
2002US-036312496;
2002US-036312496;
2002US-036312496;
2002US-040678426;
2002US-040678426;
2002US-040678426;
2002US-040678426;
2002US-040678426;
2002US-040678426;
2002US-040678426;
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                                                                                                                                                                  8 C; 3 G; 0 T; 0 U; 0 Other;
                                                                                                                        100.0%;
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                                                                                                    Score 16; DB
Pred. No. 9.5;
                                                                                  Mismatches
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                                                                                                                      DB 11; Length 19;
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08-JUN-2001;
24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
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07-FEB-1994;
08-NOV-1999;
20-MAR-2000;
09-AUG-2000;
24-OCT-2000;
08-JUN-2001;
                                                                                                                                                                                                                                                                                  26-MAR-2002;
06-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Virucide; Hepatotropic; Gene therapy; ss; short interfering nucleic siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                     WPI; 2003-901032/82.
                                                                                                                                                                                                                   Morrissey D,
                                                                                                                                                                                                                                                                    29-AUG-2002;
05-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hepatitis B virus short interfering nucleic acid (siNA) #700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADM00284;
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                                                                                                                                                                                                                                                              09-SEP-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Hepatitis B virus
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MCSWIGGEN
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2000US-00696347
2000US-00696347
2001US-00877478
2001US-00877478
2001US-0335059P
2001US-0337055P
2002US-03463124P
2002US-0363124P
2002US-0363124P
2002US-0363124P
2002US-0363124P
2002US-0363124P
2002US-0406784P
2002US-0406784P
2002US-0406784P
2002US-04063784P
2002US-04083784P
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                                                                                                                                                                                                                  Mcswiggen
                                                                                                                                                                                                                                 L A.
                                                                                                                                                                                                                   Beigelman
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New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for characterizing gene function.

Claim 11; Page 41; 72pp; English

The invention relates to a short interfering nucleic acid (siNA) molecule that down-regulates expression of a hepatikis B virus (HBV) gene by RNA interference or that inhibits HBV replication. Also disclosed are the following: (i) a method of modulating the expression of a HBV gene in a tissue explant; (ii)) a method of generating a library of siNA constructs having predetermined complexity; (iii) a cell containing one or more siNA molecules; (iv)a kit containing a siNA molecule which can be used to organism; and (v) a method for synthesising a siNA molecule. The siNA conganism; and (v) a method for synthesising a siNA molecule. The siNA companism; and tissue region, where the antisense region comprises a sense complementary to an RNA sequence encoding HBV and the sense region. The siNA comprises sequence complementary to the antisense region. The siNA comprises the sense region and the second fragment comprises the sense region and the second fragment comprises the sense region and the second fragment comprises the siNA molecule, where one fragment contains region confirms as and are covalently to the antisense region and the sense region antisense region comprise separate oligonucleotides, and are covalently connected via a linker molecule. The linker molecule is a polynucleotide linker or a non-nucleotide linker. The sense region comprises a 3'and the antisense region comprises a

Claim 11; Page 48; 72pp; English

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ADM00804
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Best Local S
Matches 16
                                                                                                                                                                     06-JUN-2002;
29-AUG-2002;
05-SEP-2002;
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24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
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24-OCT-2000;
08-JUN-2001;
               New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                        Morrissey
                                                                                                                                                                                                                                                                                                                                      14-MAY-1992;
07-FEB-1994;
                                                                                                                                                                                                          26-MAR-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Virucide; Hepatotropic; Gene therapy; 88; short interfering nucleic acid; siNA; hepatitis B virus; HBV; RNA interference.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis B virus short interfering nucleic acid (siNA) #1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 overhang. The 3'-terminal overhangs each comprise about 2 nucleotides. The antisense region 3'-terminal overhang is complementary to RNA encoding HBV. The siNA is useful for treating human hepatitis B virus infections, and for characterising pathways of gene function, e.g. to inhibit activity of target genes in a pathway to determine the function of uncharacterised genes in gene function analysis. The siNA molecules may also be used in clinical, industrial, environmental, agricultural and/or research settings. The present sequence represents 1 of 1504 HBV
                                                                                                                                                                                                                                                                                                                                                                                                                     US2003206887-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            molecules of the invention.
                                                                                                              MORRISSEY
MCSWIGGEN
BEIGELMAN
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                                                                                       Ů,
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                                                                                                                                                                    99US-00436430

2000US-00531025

2000US-00636385

2000US-00696347

2001US-00696347

2001US-02968768

2001US-03350599

2001US-03350599

2002US-03585809

2002US-03631249

2002US-03631249

2002US-04067849

2002US-04067849

2002US-040683788
                                                                                                                                                                                                                                                                                                                                                                                                                                           virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 8 A; 7 C; 4 G; 0 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                    Mcswiggen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                    Beigelman
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Pred. No.
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RESULT 17
ADL99637/c
ID ADL996
XX ADL996
XX 20-MAY
XX Viruci
XW Viruci
XW SiNa;
XX Hepati
XX US2003
XX IG-SEP
XX IG-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CC The invention relates to a short interfering nucleic acid (siNA) molecule that down-regulates expression of a hepatitis B virus (HBV) gene by RNA CC interference or that inhibits HBV replication. Also disclosed are the CC following: (i) a method of modulating the expression of a HBV gene in a CC tissue explant; (ii) a method of generating a library of siNA constructs (CC molecules; (iv)a kit containing a siNA molecule which can be used to modulate the expression of a HBV target gene in a cell, tissue or co organism; and (v) a method for synthesising a siNA molecule. The siNA constructs molecule is adapted for use to treat HBV infection, and comprises a sense complementary to an RNA sequence encoding HBV and the sense region comprises sequence complementary to the antisense region comprises the comprises sequence complementary to the antisense region of the siNA molecule, where sense region and the comprises the comprises region comprises the sense region and the second fragment comprises the comprises region comprise separate oligonucleotides, and are covalently conscreted via a linker molecule. The sinar region comprises a j-terminal overhang and the antisense region comprises a j-terminal coverhangs. The sinar region comprises and for covalence of the antisense region comprises a j-terminal overhang is complementary to RNA conscious HBV. The siNA is useful for treating human hepatitis B virus infections, and for characterising pathways of gene function, e.g. to complementary to RNA conscious in a pathway to determine the function comprises of sinar research settings. The present sequence represents 1 of 1504 HBV cand of the invention.
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Best Local
     20-MAR-2000;
09-AUG-2000;
24-OCT-2000;
08-JUN-2001;
08-JUN-2001;
24-OCT-2001;
                                                                                                                                                                          14-MAY-1992;
07-FEB-1994;
08-NOV-1999;
                                                                                                                                                                                                                                                                                         16-SEP-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hepatitis B virus short interfering nucleic acid (siNA) #54
                                                                                                                                                                                                                                                                                                                                                     06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hepatitis B virus.
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; 2000US-00531025.
; 2000US-00636385.
; 2000US-00696347.
; 2001US-00877478.
; 2001US-0296876P.
; 2001US-0335059P.
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                       92US-00882712.
94US-00193627.
99US-00436430.
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Pred. No.
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9.5;
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2001US-0337055P

Hepatitis B virus short interfering nucleic acid (siNA) #577

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RESULT 18
ADM00161/c
ID ADM001
XX
AC ADM001
XX
AC ADM001
XX
DT 20-MAY
XX
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                                                                                                                                                                                                                                                                                                                                                                                                cc modulate the expression of a HBV target gene in a cell, tissue or corganism; and (v) a method for synthesising a siNA molecule. The siNA cc molecule is adapted for use to treat HBV infection, and comprises a sense cand an antisense region, where the antisense region comprises sequence cc complementary to an RNA sequence encoding HBV and the sense region comprises sequence complementary to the antisense region. The siNA cc molecule is assembled from 2 nucleic acid fragment comprises the sense region and the second fragment comprises the comprises the siNA molecule, where sense region and the connected via a linker molecule. Where sense region and the cantisense region comprises the cantisense region and the antisense region comprises a 3'-creminal overhang and the antisense region comprises a 3'-c terminal overhang and the antisense region comprises a 3'-c terminal overhang and the antisense region comprises a 3'-c cancoding HBV. The siNA is useful for treating human hepatitis B virus infections, and for characterising pathways of gene function, e.g. to inhibit activity of target genes in a pathway to determine the function of uncharacterised genes in gene function analysis. The siNA molecules and/or research services for the oreason comprises to find antival also be used in clinical, industrial, environmental, agricultural
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Best Local S
Matches 16
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20-FEB-2002;
11-MAR-2002;
26-MAR-2002;
06-JUN-2002;
29-AUG-2002;
05-SEP-2002;
09-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           interference or that inhibits HBV replication. Also disclosed are the following: (i) a method of modulating the expression of a HBV gene in a tissue explant; (ii)) a method of generating a library of siNA constructs having predetermined complexity; (iii) a cell containing one or more siNA molecules; (iv)a kit containing a siNA molecule which can be used to
                                                                                                                                                                                                                                                                                                                                  Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                      20-MAY-2004
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                                                         ADM00161;
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                                                                                                                                                                                                                                                                                                                                                                                        or research settings. The present sequence represents
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down-regulates expression of a hepatitis B virus (HBV) gene by
rference or that inhibits HBV replication. Also disclosed are the
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MCSWIGGEN
BEIGELMAN
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                                                                                                                                                                                                                                                                             Similarity
                                                                                             standard;
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2002US-0363124P.
; 2002WO-US009187.
; 2002US-0386782P.
2002US-0406784P.
; 2002US-0400378P.
; 2002US-0409393P.
                                                                                                                                                                                                                                                          Conservative
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                      (first entry)
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                                                                                             RNA; 19
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                                                                                                                                                                                                                                                                                                                                                                       invention.
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Pred. No.
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WPI; 2003-901032/82.

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08-JUN-2001;
08-JUN-2001;
24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
26-MAR-2002;
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24-OCT-2000;
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20-MAR-2000;
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07-FEB-1994;
Morrissey D,
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                             MORRISSEY
MCSWIGGEN ,
BEIGELMAN
                                                                                         2000US-00531025
2000US-00696347
2000US-00696347
2001US-00877478
2001US-00877478
2001US-0335059
2001US-0335059
2002US-03631249
2002US-03631249
2002US-03631249
2002US-0363127
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2002US-0406782P
2002US-0406782P
2002US-0406782P
2002US-0406782P
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Mcswiggen
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94US-00193627
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   JĀ,
 Beigelman
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New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for gene function.

Claim 11; Page 48; 72pp; English.

CC that down-regulates expression of a hepatitis B virus (HBV) gene by RNA
CC interference or that inhibits HBV replication. Also disclosed are the
CC following: (i) a method of modulating the expression of a HBV gene in a
CC tissue explant; (ii)) a method of generating a library of siNA constructs
CC may be regulated to the complexity; (iii) a cell containing one or more siNA
CC molecules; (iv)a kit containing a siNA molecule which can be used to
CC companism; and (v) a method for synthesising a siNA molecule. The siNA
CC molecule is adapted for use to treat HBV infection, and comprises sequence
CC and an antisense region, where the antisense region comprises sequence
CC complementary to an RNA sequence encoding HBV and the sense region
CC comprises the sense region and the second fragments, where one fragment
CC connected via a linker molecule, where sense region and the
CC connected via a linker molecule, where sense region and the
CC connected via a linker molecule. The linker region comprises a 3'-terminal
CC coverhang. The 3'-terminal overhangs each comprise about 2 nucleotide
CC nections, and for characterising pathways of gene function, e.g. to
CC inhibit activity of target genes in a pathway to determinal, agricultural
CC may also be used in clinical, industrial, environmental, agricultural The invention relates to a short interfering nucleic acid (siNA) that down-regulates expression of a hepatitis B virus (HBV) gene molecule

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RESULT 19
ADM00158/c
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Best Local S
Matches 16
                                                                                                                                                                                                                                                                             08-NOV-1999; 99US-00436430; 08-NOV-1999; 99US-00436436; 02-MAR-2000; 2000US-00636385; 09-AUG-20001; 2000US-00696347; 08-JUN-2001; 2001US-00877478; 08-JUN-2001; 2001US-029876; 24-CCT-2001; 2001US-03350599; 05-DEC-2001; 2001US-03350599; 05-DEC-2001; 2001US-03350599; 05-DEC-2001; 2001US-03350599; 05-DEC-2001; 2002US-035631249; 06-JUN-2002; 2002US-03631249; 06-JUN-2002; 2002US-03631249; 06-JUN-2002; 2002US-03631249; 06-JUN-2002; 2002US-03631249; 06-JUN-2002; 2002US-03867829; 05-SEP-2002; 2002US-04067849; 05-SEP-2002; 2002US-04067849; 05-SEP-2002; 2002US-04067849; 05-SEP-2002; 2002US-04067849; 05-SEP-2002; 2002US-0409293P; 09-SEP-2002; 2002US-0409293P
The invention relates to a short interfering nucleic acid (siNA) molecule that down-regulates expression of a hepatitis B virus (HBV) gene by RNA interference or that inhibits HBV replication. Also disclosed are the following: (i) a method of modulating the expression of a HBV gene in a tissue explant; (ii)) a method of generating a library of siNA constructs
                                                                                     Claim 11;
                                                                                                                    New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for
                                                                                                                                                                                                     Morrissey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-MAY-1992;
07-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Virucide; Hepatotropic; Gene therapy; ss; short interfering nucleic acid,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-SEP-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hepatitis B virus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and/or research settings. The present sequence represents 1 of 1504 {
m HBV} siNA molecules of the invention.
                                                                                                                                                                            2003-901032/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hepatitis B
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MCSWIGGEN
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                                                                                                            gene
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94US-00193627
                                                                                                                                                                                                                            1 J. P.
                                                                                72pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      virus; HBV; RNA interference.
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                                                                                                            function.
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Pred. No. 9.5
0; Mismatches
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RESULT 20
AAQ13771/c
ID AAQ13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CC having predetermined complexity; (iii) a cell containing one or more sina CC modulate the expression of a sina molecule which can be used to CC modulate the expression of a HBV trarget gene in a cell, tissue or CC organism; and (v) a method for synthesising a sina molecule. The sina CC modulate the expression of a HBV trarget gene in a cell, tissue or CC organism; and (v) a method for synthesising a sina molecule. The sina CC comprises sequence encoding HBV infection, and comprises a sense CC and an antisense region, where the antisense region comprises region. The sina CC comprises sequence complementary to the antisense region. The sina CC comprises the sense region and the second fragments, where one fragment CC consecute is assembled from 2 nucleic acid fragments, where one fragment CC consecute via a linker molecule, where sense region and the CC antisense region of the sina molecule, where sense region and the CC connected via a linker molecule. The linker molecule is a polymucleotide linker or a non-nucleotide linker. The sense region comprises a 3'-cc terminal overhang and the antisense region comprises a 3'-terminal coverhang. The 3'-terminal overhang is complementary to RNA CC concoding HBV. The sina is useful for treating human hepatitis B virus confidence of the antisense region and pathways to determine the function comprise discomplementary to confidence of confidence of confidence of the confidence of confidence of the function analysis. The sina molecules and/or research settings. The present sequence represents 1 of 1504 HBV CC sina molecules of the invention.
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Best Local :
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                                                                                      Predicting course of hepatitis B infection - carrying specific mutation(s) more likely to
                                                                                                                                        WPI; 1991-310588/42.
                                                                                                                                                                                                                                     28-MAR-1990;
                                                                                                                                                                                                                                                                   28-MAR-1990;
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                                                                                                                                                                                                                                                                                                                                                               Synthetic.
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03-JAN-1992
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AAQ13771 standard;
                                                                                                                                                                                                    (UNLO ) IMPERIAL COLLEGE SCI
                                                                                                                                                                                                                                                                                                                                                                                             Hepatitis B virus; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ13771;
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(first entry)
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                                                                                      by detecting viral strains cause fulminating
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The primer corresponds to positions 1877-1896 of HBV detect the presence/absence of a pre-core variant of

DNA. It i HB virus

is used s having

the

Disclosure; Page 3; 19pp; English.

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RESULT 22
AAQ85970
ID AAQ85
XX
AC AAQ85
XX
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AAQ13772/c
ID AAQ137
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Matches 16
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Best Local S
Matches 16
                                                                                                                                       The primer corresponds to positions 1877-1896 of HBV DNA. It is used to detect the presence/absence of a pre-core variant of HB virus having the mutation mu-1896 with or without mu-1899. The primer will detect only the negative HBV DNA strand with neither mutation. See also AAQ13770-Q13773 (Updated on 25-MAR-2003 to correct PA field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mutation mu-1896 with or without mu-1899. The primer will detect only the negative HBV DNA strand with the mu-1896 mutation. See also AAQ13770-Q13773 (Updated on 25-MAR-2003 to correct PA field.)
         AAQ85970;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20
                                                                                                                         Sequence
                                                                                                                                                                                                     carrying spinfections.
                                                                                                                                                                                                           Predicting course of hepatitis B infection - by detecting viral carrying specific mutation(s) more likely to cause fulminating
                                                                                                                                                                                                                                                   Thomas H,
                                                                                                                                                                                                                                                                                 28-MAR-1990;
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                                                                                                                                                                                                                                                                                                                                              Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                          HBV primer
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03-JAN-1992
                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ13772;
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ13772 standard; DNA; 20
                        AAQ85970
                                                                                                                                                                                      Disclosure; Page 3; 19pp; English.
                                                                                                                                                                                                                                                                  (ONLO)
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                         standard;
                                                                        AAAGCCACCCAAGGCA 16
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(first entry)
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                        DNA;
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Pred. No. 9.
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Pred. No. 9.5;
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AAT70947
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Best Local (
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 WPI; 1997-119063/11.
                 Anderson KP,
                                              13-JUL-1995;
                                                             26-JUN-1996;
                                                                                                          Synthetic.
                                                                                                                                                                      27-OCT-1997
                                                                                                                                                                                       AAT70947;
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                                                                             30-JAN-1997.
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PHARM INC.

9508-00501968 96WO-US010984.

Cowsert LM;

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Primers AAQ85967-70 were used to PCR amplify the coding sequence for a polypeptide derived from hepatitis B virus (AAQ85966). The sequence encodes a polypeptide of 134 amino acids. The DNA was isolated from patients infected with hepatitis virus which was not detected by conventional methods. The polypeptide can be used in the diagnosis of hepatitis viral diseases which cannot be detected by convential methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Polypeptide derived from hepatitis B virus and its coding gene. - used for detection of HBV not detectable by conventional methods.
antisense; repl
hepatocellular
                   HBV; hepatitis B virus; S; surface antigen; C; core; P; | antisense; replication inhibition; hepatitis; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hepatitis B virus; PCR; amplification; primer; antiviral agent;
                                                                            HBV pre-genome
                                                                                                                                                                                                       AAT70947 standard;
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  carcinoma;
                                                                              element epsilon region antisense
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inhibiting the replication of hepatitis B virus (HBV). The ONS specifically hybridise to HBV RNA or pre-RNA which encodes a P (DNA polymerase), S (surface antigen) or C (core) gene product and/or with HBV SS RNA pre-genome elements e.g. S' cap region, US region, epsilon region or a translation initiation site. The ONS can be used for diagnosing HBV infection, for inhibiting HBV replication and for treating or preventing a HBV associated diseases, e.g. acute, chronic or fulminant hepatitis or

70969 are antisense oligonuclectides (ONs) capable the replication of hepatitis B virus (HBV). The ON

New oligo:nucleotide(s) hybridisable with Hepatitis B virus RNA - used for inhibiting HBV replication and for diagnosis, treatment or prevent of HBV-associated diseases e.g. hepatitis.

prevention

Claim 4; Page 16; 47pp; English.

AAT70930-T70969 are

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Oligonucleotides AAQ92905-12 are used to inhibit the replication of hepatitits virus replication. This oligonucleotide binds to the cisencapsidation signal of hepatitits B virus. The oligonucleotides are introduced into pref. hepatocytes, as soluble molecular complexes. The are used to treat hepatitis B virus infections but could also be used against e.g. Hepatitis A or C, herpes, influenza, etc. The oligonucleotides can also be used to detect the presence of the virus
                                                                                                                                                     New oligo and polynucleotide(s) that inhibit viral replication hybridise e.g. to an RNA primer or primer binding region, and to soluble complexes, esp. for treating hepatitis B infection.
                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                   12-JAN-1994;
08-AUG-1994;
                                                                                                                                                                                                                  WPI; 1995-263863/34.
                                                                                                                                                                                                                                                                         (TARG-) TARGETECH
                                                                                                                                                                                                                                                                                                                                           11-JAN-1995;
                                                                                                                                                                                                                                                                                                                                                                       20-JUL-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                            Replication; hepatitis virus; primer; DRII region; hepatocyte; antiviral; herpes; influenza; drug; pre-Sl protein; polymerase; encapsidation; ss.
                                                                                                                                   20;
                                                                                                                                  Page 19;
       evaluate the effect of antiviral
                                                                                                                                                                                                                                                                                                   94US-00181557.
94US-00287337.
                                                                                                                                                                                                                                                                                                                                          95WO-US000508
                                                                                                                                                                                                                                                                          INC
                                                                                                                              31pp;
                                                                                                                               English.
     detect the presence of antiviral drugs
                 the virus
                                                                                                                                                                      their new
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Matches Query Match Best Local

l Similarity 100.0%; 16; Conservative

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16

100.0%;

Score 16; Pred. No.

No.

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Length

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                  corresponds to nucleotide 1884 of the HBV ayw subtype C gene, using the numbering scheme from the sequence published by Galibert et al., Nature 281: 646 (1979). A compsn. comprising the oligonucleotide may be used to treat chronic HBV infection by modulating a HBV related function, e.g. translation, transcription, encapsidation, replication and release from a host cell. The effect of the oligonucleotide on the levels of HBV DNA in the extracellular medium (VIR. DNA), intracellular viral replicative intermediates (HBV RI), intracellular viral RNA (HBV RNA), HBV surface antigen protein (HBcAg), HBV e antigen protein (HBcAg), HBV entigen protein (HBCAg), given as the EC(90) (microM, 9 days of treatment) or ND (not determined), are VIR. DNA (11.8), HBV RI (ND), HBV RNA (ND), HBSAg (>20), HBCAG) (>20) and HBCAG (18.8)
                                                                                                                                                                                                    The present sequence, which inhibits the replication of hepatitis B virus (HBV) in a host cell, is a single stranded antisense oligonucleotide that binds the epsilon encapsidation sequence of a mRNA intermediate derived from the HBV genome. The 1st nucleotide of the oligonucleotide
                                                                                                                                                                                                                                                                                 Claim 14; Page 44; 56pp; English.
                                                                                                                                                                                                                                                                                                            Single stranded oligo:nucleotide(s) for inhibiting replication of hepatitis B virus - are anti-sense to portions of the epsilon encapsidation sequence and modulate HBV function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              epsilon; encapsidation; sequence;
treatment; chronic infection; mod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                release; host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Inhibition; replication; hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HBV epsilon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                   Gerin JL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chronic infection; modulation; translation; transcription;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     encapsidation mRNA intermediate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               94US-00281106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95WO-US009143.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          intermediate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       virus;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HBV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       subtype ayw;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene;
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RESULT 24
AAQ92909
ID AAQ92

AAQ92909 standard; cDNA;

21

ВP

AAQ92909

28-FEB-1996

(first entry)

oligonucleotide

Loop inhibits HBV replication.

문 S

Matches Query Match Best Local

l Similarity 16; Conserv

Conservative

0,

Mismatches

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Gaps

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100.0%;

Score 16; Pred. No. 0 T;

9.5; 0 Other;

2; Length 20; Indels

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AAAGCCACCCAAGGCA 16

AAAGCCACCCAAGGCA 16

Sequence

20 BP; 8 A; 8 C; 4 G;

0 U;

hepatocellular carcinoma

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RESULT 27
AAT70936
ID AAT70
XX
AC AAT70
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AAT18253
ID AAT18
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                                                                                                                                                                                                                                                                                                                                                                               The present sequence, which inhibits the replication of hepatitis B virus (HBV) in a host cell, is a single stranded antisense oligonucleotide that binds the epsilon encapsidation sequence of a mRNA intermediate derived from the HBV genome. The 1st nucleotide of the oligonucleotide corresponds to nucleotide 1879 of the HBV ayw subtype C gene, using the numbering scheme from the sequence published by Galibert et al., Nature 281: 646 (1979). A compan. comprising the oligonucleotide may be used to treat chronic HBV infection by modulating a HBV related function, e.g. translation, transcription, encapsidation, replication and release from a companient of the cell. The effect of the oligonucleotide on the levels of HBV DNA in the extracellular medium (VIR. DNA), intracellular viral replicative intermediates (HBV RI), intracellular viral RNA (HBV RNA), HBV surface antigen protein (HBcAg), HBV e antigen protein (HBcAg) and HBV core antigen protein (HBCAg), given as the EC(90) (microm, 9 days of the DNA (170), HBV RI), UBCA (170), UBCA (170),
                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Single stranded oligo:nucleotide(s) for inhibiting replication hepatitis B virus - are anti-sense to portions of the epsilon encapsidation sequence and modulate HBV function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inhibition; replication; hepatitis B virus; HBV; antisense; mRNA; epsilon; encapsidation; sequence; intermediate; subtype ayw; C gene; treatment; chronic infection; modulation; translation; transcription.
                                            AAT70936 standard;
                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                                                                                                                                                                                 HBBAg (>20), HBeAg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 44; 56pp; English.
                                                                                                                                                                                                                                                                                                                         BP; 8
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                                            DNA;
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                                                                                                                                                                                                                                                         Score 16; DB Pred. No. 9.5;
                                                                                                                                                                                                                                                                                                                         1 T; 0 U;
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                                                                                                                                                                                                                                                                                                                                                               and HBcAg (>20)
                                                                                                                                                                                                                                                                                                                         0 Other;
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Matches 16
double-stranded short interfering nucleic acid; short interfering nucleic acid; sink, expression; replication; short interfering nucleic acid; sink, expression; replication; inhibition; RNA interference; virucide; anti-HIV; hepatotropic; antiinflammatory; plant; antiviral; vasotropic; neuroprotective; cytostatic; cardiovascular; immunosuppressive; respiratory; nephrotropic; endocrine; viral infection; hepatitis B; hepatitis C; HIV; herpes simplex; cytomegalovirus; human papillomavirus; repepiratory syncytial virus; influenza virus; restenosis; neurodegeneration; cancer; neurological; prion; inflammatory; autoimmune; pulmonary; renal; liver; mitochondrial; reproductive disease; chemical modification; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inhibiting the replication of hepatitis B virus (HBV). The ONS specifically hybridise to HBV RNA or pre-RNA which encodes a P (DNA polymerase), S (surface antigen) or C (core) gene product and/or wit se RNA pre-genome elements e.g. a 5' cap region, U5 region, epsilon region or a translation initiation site. The ONs can be used for diagnosing HBV infection, for inhibiting HBV replication and for tre or preventing a HBV associated diseases, e.g. acute, chronic or fuln hepatitis or hepatocellular carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New oligo:nucleotide(s) hybridisable with Hepatitis B virus RNA - used for inhibiting HBV replication and for diagnosis, treatment or prevention
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of HBV-associated diseases e.g. hepatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1997-119063/11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hepatocellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HBV; hepatitis B virus; S; surface antigen; C; core; P; polymerase; antisense; replication inhibition; hepatitis; infection; diagnosis;
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                                                                                                                                                                                                         20-NOV-2003
                                                                                                                                                                                                                                      ADA13842
                                                                                                                                                                                                                                                                   ADA13842 standard; RNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAT70930-T70969 are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Page 16; 47pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-JUL-1995;
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                                                                                                                                                                            interfering
                                                                                                                                                                                                                                                                                                                                                                                                  16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 A;
                                                                                                                                                                            nucleic acid (siNA) oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antisense oligonucleotides (ONs)
                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 C;
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G;
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Pred. No.
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T;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for treating or fulminant
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Synthetic.

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Query Match
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Morrissey
                                                                                                                                                                                                                             New short interfering nucleic acid containing no ribonucleotides, useful e.g. for treating viral infection, downregulates expression of target
                                                                                                                                                                                                                 Example 4; Page
                                                                                                                                                                                                                                                                                                   20-RBB-2002; 2002US-0358580P
11-MAR-2002; 2002US-0363124P
06-UUN-2002; 2002US-0386782P
29-AUG-2002; 2002US-0406784P
                                                                                                                                                                                                                                                                                          09-SEP-
                                                                                                                                                                                                                                                                                               05-SEP-2002;
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                                                                                                                                                                                                                                                                                                                                                  WO2003070918-A2
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                Similarity
AAAGCCACCCAAGGCA 16
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                                BP; 1
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; 2002US-0406784P.
; 2002US-0408378P.
; 2002US-0409293P.
; 2003US-0440129P.
                                                                                                                                                                                                                                                        Beigelman L,
Fosnaugh K,
                                                                                                                                                                                                               137; 204pp;
                             A; 4 C; 8 G; 2 T; 6 U; 0 Other;
               100.0%;
                                                                                                                                                                                                                                                        Macejak D, Zinnen S,
Mokler V, Jamison S;
          0;
                                                                                                                                                                                                                English
               Score 16; I
Pred. No. 9
         Mismatches
                   DB 9; Length 21,
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         0;
         Indels
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The invention relates to a short interfering nucleic acid (siNA) molecule CC that down-regulates expression of a hepatitis B virus (HBV) gene by RNA interference or that inhibits HBV replication. Also disclosed are the CC following: (i) a method of modulating the expression of a HBV gene in a CC having predetermined complexity; (ii) a cell containing one or more siNA containing a siNA molecule which can be used to molecules; (i) a method of generating a library of siNA constructs (ii) a cell containing one or more siNA cCC molecules; (i) a method for synthesising a siNA molecule: The siNA cCC molecule is adapted for use to treat HBV infection, and comprises a sense CC and an antisense region, where the antisense region comprises sequence complementary to the antisense region. The siNA cCC comprises sequence complementary to the antisense region. The siNA cCC comprises sequence complementary to the antisense region. The siNA cCC comprises the sense region and the second fragments, where one fragment CCC comprises the sense region and the second fragment comprises the conservation of the siNA molecule, where sense region and the conservation of the siNA molecule. The linker molecule is a polymcleotide connected via a linker molecule. The linker molecule is a polymcleotide connected via a linker molecule. The sense region comprises a 3'-
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09-AUG-2000;
24-CCT-2000;
08-JUN-2001;
08-JUN-2001;
08-JUN-2001;
08-DEC-2001;
05-DEC-2001;
05-DEC-2001;
11-MAR-2002;
11-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                       New short interfering nucleic acid molecules which down-regulates expression of a hepatitis B virus (HBV) or which inhibits HBV replication, useful for treating human HBV infections or for characterizing gene function.
                                                                                                                                                                                                                                                                                                                                                                     Claim 11; Page 51; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Morrissey D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MORR/)
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07-FEB-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hepatitis B virus short interfering nucleic acid (siNA) #1340
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UG-2000; 2000US-00696347.
UN-2001; 2001US-00877478.
UN-2001; 2001US-0296876p.
UN-2001; 2001US-0335059p.
UG-2001; 2001US-0335059p.
UG-2001; 2002US-0358580p.
UG-2002; 2002US-036580p.
UG-2002; 2002US-036580p.
UG-2002; 2002US-036580p.
UG-2002; 2002US-0363124p.
UG-2002; 2002US-0363124p.
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) MCSWIGGEN J A.
) BEIGELMAN L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; 2002US-0386782P.
; 2002US-0406784P.
; 2002US-0408378P.
; 2002US-0409293P.
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RESULT 30
AAQ13770/c
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                                                                                                                       The primer corresponds to positions 1877-1899 of HBV DNA. It is used to detect the presence/absence of a pre-core variant of HB virus having the mutation mu-1896 with or without mu-1899. The primer will detect only the negative HBV DNA strand with both the mutations. See also AAQ13771-Q13773
                                                                                                                                                                                                     infections.
                                                                                                                                                                                                               Predicting course of hepatitis B infection - by detecting viral strains carrying specific mutation(s) more likely to cause fulminating
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03-JAN-1992
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16; Conserv
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                     AAAGCCACCCAAGGCA 16
AAAGCCACCCAAGGCA
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                                            Conservative
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(first entry)
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                                                                                                                                                                               3; 19pp; English.
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Pred. No.
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                                                               DB 2; Length 23;
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RESULT 31
AATT03266/c.
ID AATT03266 standard; DNA; 23 BF XX
AC AAT03266;
XX
AC AAT03266;
XX
DT 02-APR-1996 (first entry)
XX
Hepatitis B virus (HBV) sense XX
Polymerase chain reaction; PC XX
PD 08-AUG-1995.
XX
OS Synthetic.
XX
PN JP07203972-A.
XX
PN JP07203972-A.
XX
PN 08-AUG-1994; 94JP-00000515
XX
VX
PP 07-JAN-1994; 94JP-00000515
XX
PF 07-JAN-1994; 94JP-00000515
XX
PR (SAKA) OTSUKA PHARM CO LTD.
XX
PR WPI; 1995-307167/40.
XX
CX
CX
CThe sequences represented by for Hepatitis B virus DNA from the mutant prec reg CC HBV-DNA. The mutant prec reg CC HBV-DNA. The mutant prec reg CC HBV-DNA. The mutant prec reg point mutantion (G3 to A83).
CC can be used to diagnose hepa XX
Sequence 23 BP; 3 A; 4 C; 8
X B X B X S X X X X X D D X A X I I
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AAQ81424/c
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Best Local :
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                                                                                                                                                                                                                                              AAQ81424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hepatitis B virus DNA fragment contg. S gene region and mutant preC region - useful for simultaneous detection of mutant and complete HBV DNA
                                                                             Synthetic
                                                                                                             polymerase
                                                                                                                                                                                            25-MAR-2003
13-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               can be used to diagnose hepatitis B
                                                WO9502690-A1
                                                                                                                               HBV; hepatitis
                                                                                                                                                            HBV hybridization probe
                                                                                                                                                                                                                                                                             AAQ81424 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for diagnosis of hepatitis B.
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                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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(first en
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reaction; LCR; ligase chain r
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                                                                                                               reaction;
                                                                                                                                detection; PCR;
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26-JAN-1995

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RESULT 33
AAD19005/c
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Matches 16
The invention relates to a method and apparatus for the simultaneous detection of multiple biological entities such as bacteria, fungi and viruses by specific nucleic acid amplification. The invention also relates to a kit for simultaneous detection of biological entities. The kit is employed for detecting blood-borne pathogens, associated with a
                                                                                                  Simultaneous detection of biological viruses by specific nucleic acid ampl
                                                                                                                                                                                        (INVE-)
                                                                                                                                                                                                           14-MAR-2000; 2000US-0189344P
                                                                                                                                                                                                                                    14-MAR-2001; 2001WO-US008110
                                                                                                                                                                                                                                                             20-SEP-2001
                                                                                                                                                                                                                                                                                                            Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                        Hepatitis B virus; HBV; bacterial infection; fungi; protozoa; PCR amplification; blood-borne pathogen; sexually transmitted disease;
                                                                                                                                                                                                                                                                                     WO200168921-A2
                                                                                                                                                                                                                                                                                                                                                                                 Hepatitis B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -fill or exo format, and which can be used in PCR and LCR protocol, hybridize to target sequences of HBV, selected from those given in AAQ81432-36. (Updated on 25-MAR-2003 to correct PN field.)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 45; 70pp; English.
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                                                                           Page 31; 55pp; English.
                                                                                                                                                                                                                                                                                                                                                                                Virus
                                                                                                                                                                                                                                                                                                                                   disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in AAQ81412-31 and AAQ81437-44 are used to detect hepatit) in test samples. The probes, which include ligation upstream and downstream probes that can be corrected by a format, and which can be used in PCR and LCR protocols,
                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                Zwick MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93US-00090755
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                                                                                                                                                                                                                                                                                                                                                                                (HBV)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 C; 8 G;
                                                                                                                                                                                                                                                                                                                                                                          precore DNA amplifying forward PCR primer #5.
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                                                                                                                                                                Mccue
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 16; DB
Pred. No. 9.4
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 T;
                                                                                                  amplification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 U; 0 Other;
                                                                                                             entities such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.4;
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                                                                                                            bacteria,
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                                                                                                           fungi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hepatitis
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RESULT 34
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Best Local S
Matches 16
                                                                                                                                                              24-OCT-2001;
05-DEC-2001;
20-FEB-2002;
11-MAR-2002;
26-MAR-2002;
                                                                                                                                                                                                                    24-OCT-2000;
08-JUN-2001;
08-JUN-2001;
                               WPI; 2003-901032/82.
                                                                                     (MORR/)
                                                                                                                     09-SEP-2002;
                                                                                                                                                      06-JUN-2002;
                                                                                                                                                                                                                                                   20-MAR-2000;
09-AUG-2000;
                                                                                                                                                                                                                                                                                    14-MAY-1992;
07-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             variety of infectious diseases such as respiratory and sexually transmitted diseases. The methods and apparatus are used for the simultaneous detection of biological entities present in biological and environment samples. In particular, they are used for monitoring disease cause by microorganisms associated with a respiratory or sexually transmitted disease such as a bacterium (Staphylococcus, Pneumococcus, Gonococcus, Haemophilus, Bacteroides, Escherichia or Salmonella), virus (DNA or RNA virus, such as adenovirus, adeno-associated virus, HAV, HCV, HDV, HEV, HGV.or TTV), fingus (Asspergillus fumigatus, Blastomycosis, dermatitis, Candida albicans) or protozoa (Entamoeba histolytica). The present sequence is a PCR primer used for amplifying Hepatitis B Virus (HRV) preserve NAS
                                                                                                                                                                                                                                                                           08-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                       Virucide; Hepatotropic; G
siNA; hepatitis B virus;
                                                                                                                                                                                                                                                                                                                     16-SEP-2002;
                                                                                                                                                                                                                                                                                                                                           06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                               US2003206887-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                         Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADM00880 standard; RNA;
                                                                                                                                                                                                                                                                                                                                                                                     Hepatitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAY-2004
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                                                                        MORRISSEY
MCSWIGGEN
BEIGELMAN
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                                                                                                                                                                                                                                                                                                                                                                                   B virus.
                                                                                                                          990S-00436430.
2000US-00531025.
2000US-00536385.
2000US-00696347.
2001US-00696347.
2001US-03968769.
2001US-03350599.
2002US-03585809.
2002US-03585809.
2002US-03631249.
2002US-03631249.
2002US-03667849.
2002US-04067849.
                                                                                                                                                                                                                                                                                                                                                                                                                                         virus
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                                                  Mcswiggen
                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                       short
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                   JA,
                                                                                                                                                                                                                                                                                                                                                                                                      Gene therapy; ss; short; HBV; RNA interference.
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                                                 Beigelman
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                acid;
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New short interfering nucleic acid expression of a hepatitis B virus

| molecules which down-regulates (HBV) or which inhibits HBV

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THE REPORT OF THE PROPERTY OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a short interfering nucleic acid (siNA) molecule that down-regulates expression of a hepatitis B virus (HBV) gene by RNA conterference or that inhibits HBV replication. Also disclosed are the collowing: (i) a method of modulating the expression of a HBV gene in a tissue explant; (ii) a method of generating a library of siNA constructs converges in a content of the siNA constructs converges in a converge converge converges in a converge converge converges in a converge 
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29-JUL-1998
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                                                                                              18-SEP-1996;
                                                                                                                                                            18-SEP-1997;
                                                                                                                                                                                                                              26-MAR-1998
                                                                                                                                                                                                                                                                                                 WO9811916-A1
                                                                                                                                                                                                                                                                                                                                                               Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hepatitis infection; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hepatitis B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV29303;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                siNA molecules of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     replication, useful
                               (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGCCACCCAAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    virus; HBV; vaccine; treatment; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  virus (HBV) core fragment DNA amplifying primer 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
llarity 100.0%;
Conservative 0
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(first entry)
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                                                                                              96US-0026313P
                                                                                                                                                            97WO-US016541
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C;
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Pred. No. 9.4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human HBV infections or for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 U;
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RESULT 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAS14628/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                     NASBA; nucleic acid sequence based amplification; ss; probe; anchor sequence; anti-viral; hepatitis B virus; HBV; HBV infisothermal continuous transcription based amplification; WT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Defective interfering virus particle that occurs naturally in infection used in protective vaccines and for treating viral, specifically
                                                                                                                                                                               modified_base
                                                                                                                                                                                                                                       Key
modified_base
                                                                                                                                                                                                                                                                                          Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                                                NASBA moleclular beacon probe MB WT 1.
                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 30
                                         26-FEB-2001; 2001WO-EP002143
                                                                                                      WO200164959-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Page 23; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hepatitis B, infections.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2003 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            surface antigen only, w
)3 to correct OS field.)
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32
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/mod_base=
                                                                                                                                                                                                                                                            Location/Qualifiers
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                                                                                                                                                                                                               _base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 16; DB:
100.0%; Pred. No. 9.4;
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                                                                                                                                    "DABCYL (not
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                                                                                                                                    defined) labelled
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                                                                                                                                    as a
                                                                                                                                                                                                                                                                                                                                       infection;
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02-MAR-2000; 2000EP-00200737

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RESULT 37
AAT71784/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local (
          07-JUN-1995;
                                  03-JUN-1996;
                                                           19-DEC-1996.
                                                                                   WO9640996-A1
                                                                                                                                   misc_difference
                                                                                                                                                                                                                          Hepatitis B
                                                                                                                                                                                                                                                 HBV; ligase
                                                                                                                                                                         misc_difference
                                                                                                                                                                                                                                                                           Hepatitis B
                                                                                                                                                                                                                                                                                                     29-AUG-1997
                                                                                                                                                                                                                                                                                                                                                AAT71784 standard; DNA; 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Monitoring anti-viral therapy, where hepatitis B virus (HBV) mRNA is detected, useful for monitoring the efficacy of HBV treatment, by amplifying a target nucleic acid in a sample obtained from a subject suspected of HBV infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 6; Page 12; 42pp; English.
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Best Local S
Matches 16
                                                                  A novel method has been produced for detecting
                                                                                                                Quantitative detection of target nucleic acid sequence, esp. hepatitis virus - can distinguish wild-type and mutant DNA types.
                                                                                                                                                           WPI; 1997-052367/05
                                                                                                                                                                                 Birkenmeyer L,
                                                                                                                                                                                                                                    07-JUN-1995;
                                                                                                                                                                                                                                                                                     19-DEC-1996
                                                                                                                                                                                                                                                                                                                                    Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sample. The present sequence represents a target sequence from hepatitis B virus (HBV) precore antigen (mutant). The method can be used for distinguishing between two different nucleic acid sequences present in a sample e.g. wild-type and mutant. The compositions can be used for quantitatively detecting the DNA of HBV
                                                                                                                                                                                                          (ABBO ) ABBOTT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 44 BP;
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                                                                                                                                                                                                                                                                                                                                                                              virus precore antigen target sequence wild-type
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nucleic acid sequence which may be present in a test sample. It involves contacting the test sample with means for performing a nucleic acid amplification reaction; and determining the ratio of target amplification products to internal standard amplification products present in the sample. The present sequence represents a target sequence from hepatitis B virus (HBV) precore antigen (wild-type). The method can be used for

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Matches 16
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                                                                                                                                                                                                                                                                                                                                                                                                     antiinflammatory, hepatitis B virus; infection; chicken pox;
1,3,5-triazine derivative; DNA virus; RNA virus; gastroenteritis;
infectious mononucleosis; smallpox; allergic rash; aseptic meningitis;
influenza; acquired immune deficiency syndrome; AIDS; measles; ss.
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                                        Pharmaceutical formulations for treating HBV and microbial infections
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                                                                                              (SCRI-) SCRIPTGEN PHARM INC.
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              Fig 255B; 114pp; English
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Matches 16
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                                                                                                                                 misc_binding
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601 4 US-09-949-016-33127 601 4 US-09-949-016-33323 601 4 US-09-949-016-33324 601 4 US-09-949-016-33325 601 4 US-09-949-016-33327	601 4 US 601 4 US 601 4 US	8.8 601 4 US 8.8 601 4 US 8.8 601 4 US	8.8 601 4 US 8.8 601 4 US	8.8 601 4 US 8.8 601 4 US 8.8 601 4 US	8.8 601 4 US 8.8 601 4 US	8.8 601 4 US	8.8 601 4 US 8.8 601 4 US	8.8 601 4 US 8.8 601 4 US	8.8 601 4 US 8.8 601 4 US	68.8 601 4 US	68.8 601 4 US	8.8 601 4 US	1 68.8 595 4 US 1 68.8 601 4 US	1 68.8 593 4 US 1 68.8 595 4 US	8.8 591 4 US	8.8 591 3 US 8.8 591 4 US	1 68.8 587 4 US 1 68.8 589 4 US	1 68.8 587 4 US 1 68.8 587 4 US	1 68.8 587 3 US 1 68.8 587 4 US	68.8 571 4 US	68.8 542 4 US	68.8 534 3 US	68.8 519 4 US	68.8 505 4 US	68.8 501 4 US 68.8 502 4 US	8.8 500 4 US	1 68.8 500 4 US	1 68.8 495 4 US	1 68.8 495 3 US	1 68.8 495 3 US	1 68.8 495 2 US 1 68.8 495 3 US

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INFORMATION FOR SEQ ID NO: 4
SEQUENCE CHARACTERISTICS:
LENGTH: 16 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
ANTI-SENSE: YES
US-08-281-106-48
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US-08-281-106-48
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 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No. 5646262
GENERAL INFORMATION:
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993
994
995
996
997
                                                                                                                      FILING DATE:

CLASSIFICATION: 514
ATTORNEY_AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 6666
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEPAX: 202 672 5399
TELEX: 904136
                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Antisense Oligonucleotides Against TITLE OF INVENTION: Hepatitis B Viral Replication NUMBER OF SEQUENCES: 56
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: KORBA, Brent E. APPLICANT: GERIN, John L.
                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                 20007-5109
                                                                                                                                                                                                                                                                                                                                    SSEE: Foley & Lardner T: 3000 K Street, N.W. Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  8, Application US/08281106
5646262
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US-09-949-016-41564

US-09-949-016-43078

US-09-949-016-43207

US-09-949-016-43655

US-09-949-016-44713

US-09-949-016-44713

US-09-949-016-44713

US-09-949-016-44713

US-09-949-016-44713

US-09-949-016-46329

US-09-949-016-46329
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US-09-949-016-35476
US-09-949-016-35477
US-09-949-016-35559
US-09-949-016-36379
US-09-949-016-36379
US-09-949-016-38250
US-09-949-016-38250
US-09-949-016-38251
US-09-949-016-38250
US-09-949-016-38250
US-09-949-016-38250
US-09-949-016-38250
US-09-949-016-38250
US-09-949-016-38250
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Score 16;
Pred. No.
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 DB 1;
1.7;
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RESULT 3
US-09-155-885A-41
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US-09-199-269-48
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Best Local S
Matches 16
                                                                                                 Sequence 41, Application Patent No. 6709812
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 48, Applicati
Patent No. 6503533
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 202 672 5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/199,269
FILING DATE: 25-No. 6503533-1998
CLASSIFICATION: <UNknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/281,106
FILING DATE: -UNknown>
APPLICATION NUMBER: 08/281,106
FILING DATE: -UNknown>
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
PROTESTENTON WIMBER: 20.76
MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 16 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
ANTI-SENSE: YES
SEQUENCE DESCRIPTION: SEQ ID NO: 48:
                                                               APPLICANT: STUYVER, LIEVEN ROSSAU, RUDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 66
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
ADDRESSEE FOLEY & Lardner
STREET: 3000 K Street, N.W.
CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICAMA: AVAILABLE OF INVENTION: Antisense Oligonucleotides Against Hepatitis B Viral Replication
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                                                                                                                                                                                                                                                                               1 AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                            Application US/09155885A
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                                                                                                                                                                                                                                                                                                                     100.0%; Score 16; DB 4; Length 16; ilarity 100.0%; Pred. No. 1.7; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
            COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPALIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: PATENTIN Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/8/4/80,220A
                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Birkenmeye
APPLICANT: Mushahwar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (703) 816-4100
INFORMATION FOR SEQ ID NO: 41:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories D377/AP6D
STREET: 100 Abbott Park Road
                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 22201-4714

COMPUTER READABLE FORM:
MEDIUM TYRE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PETENTIAL Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/155,885A
FILING DATE: 08-OCt-1998
CLASSIFICATION <UNKNOWN>
PRIOR APPLICATION AURKNOWN>
PRIOR APPLICATION AURKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYPOTHETICAL: NO
ANTI-SENSE: NO
SEQUENCE DESCRIPTION: SEQ ID NO: 41:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: EP 96870053.4 FILING DATE: 19-APR-1996 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
REFERENCE/DOCKET NUMBER: 25
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear MOLECULE TYPE: DNA (genomic) HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AAAGCCACCCAAGGCA 16
                                                                                                                                                             60064-3500
                                                                                                                                                                                                                      Abbott Park
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 16 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: PCT/EP97/02002 FILING DATE: 21-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: NIXON & VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                 Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (703) 816-4000
                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                Birkenmeyer, Larry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
07 JUN 1995
                                                                                                                                                                                                                                                                                                                       METHOD FOR DETECTING NUCLEIC ACID SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                                                        26
                  US/08/480,220A
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                                                          Version
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Patent No. 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/480,220
PILING DATE: 07-JUN-1995 ~
ATTORNEY/AGENT INFORMATION:
NAME: POTEMBER: 33,207
REFERENCE/DOCKET NUMBER: 3770.US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Birkenmeyer
APPLICANT: Mushahwar,
                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/864,404 FILING DATE: 28-MAY-1997
                     SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories D377/AP6D
STREET: 100 Abbott Park Road
CITY: Abbott Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 708/937-6365
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
                                                                     TELEFAX:
                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Porembski, Priscilla B. REGISTRATION NUMBER: 33,207
                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match 100.0%;
Local Similarity 100.0%;
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TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Illinois
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18 base pairs
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linear
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Pred. No.
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nucleic acid

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US-09-155-885A-49
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Query Match
Best Local Similarity
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Patent No. 6709812
GENERAL INFORMATION:
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NAME/KEY:
LOCATION:
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TOPOLOGY: lii
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                                                                                                                                                                                                                           NAME: SADOPF, B.J.

REGISTRATION NUMBER: 36,663

REFERENCE/DOCKET NUMBER: 2851-5

TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 816-4000

TELEFAX: (703) 816-4100
                                                             ANTI-SENSE: NO
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                               HYPOTHETICAL: NO
                                                                                                           TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/155,885A
FILING DATE: 08-OCt-1998
FILING DATE: 08-OCt-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 22201 4714
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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ADDRESSEE: NIXON & VANDERHYE P.C
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TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16;
                                                                                                                            LENGTH: 18 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: EP 96870053.4 FILING DATE: 19-APR-1996 HERY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: ARLINGTON
STATE: VIRGINIA
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                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: U.S.A.
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100.0%;
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Score 16;
Pred. No.
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Pred. No. 1.7
0; Mismatches
                                                               49:
DB 4;
1.7;
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           Length 18;
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US-08-480-220A-21
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US-08-480-220A-21/c
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                                                                                                                 Sequence 25, Application US/08480220A
Patent No. 5667974
                                                                                                                                                                                                                                                                                             Matches
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Best Local Similarity
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                                                                                                GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Birkenmeyer
APPLICANT: Mushahwar,
       APPLICANT: Birkenmeyer, Larry
APPLICANT: Mushahwar, Isa K.
TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
NUMBER OF SEQUENCES: 26
                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: POTENDSKI, PRISCILLA E.
REGISTRATION UNMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770
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MEDIUM TYPE: Floppy disk
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: sing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX:
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T: 100 Abbott Park Road
Abbott Park
Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19 base pairs
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Mushahwar, Isa K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 21, Applia Patent No. 5955598
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APPLICANT: Birkenmeyer
APPLICANT: Mushahwar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/864,404
FILING DATE: 28-MAY-1997
CIASCATICATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,220A
FILING DATE: 07 JUN 1995
                  CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: POTEMBRY, PISCILIA E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.US.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
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STREET: 100 Abbott Park Road
CITY: Abbott Park
                                                                                                                                                                                                                                                                                       ADDRESSEE: Abbott Laboratories D377/AP6D
STREET: 100 Abbott Park Road
CITY: Abbott Park
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                                                                                                                                                                                                                              COUNTRY: USA
ZIP: 60064-35008
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LOCATION: 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
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07-JUN-1995
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                  08/480,220
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US-08-864-404-25/c
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Patent No. 5955598
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                                                                                                                                                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMEER: 08/480,220
FILING DATE: 07-JUN-1995
ATTORNEY AGENT INFORMATION:
NAME: Porembski, Priscilla E.
REGISTRATION NUMBER: 33,207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Birkenmeye
APPLICANT: Mushahwar,
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SEQUENCE CHARACTERISTICS:
                                                                                                          INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/864,404
FILING DATE: 28-MAY-1997
                                                                                                                                                      REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.US.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                       SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                  STRANDEDNESS:
TOPOLOGY: lir
                                              TYPE: nucleic acid
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REGISTRATION NUMBER:
                                                                                                                                           TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Abbott Park
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                                                                        PCT-US96-10984-18
                                                                                        RESULT 12
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US-08-501-968-18
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                                         Sequence 18, Application PC/TUS9610984 GENERAL INFORMATION:
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GENERAL INFORWATION:
GENERAL INFORWATION:
APPLICANT: Kevin Anderson and Lex Cows
TITLE OF INVENTION: Virus Replication
                                                                                                                                                                                              Matches
                                                                                                                                                                                                                         Query Match
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APPLICANT: Kevin Anderson and Lex Cowsert TITLE OF INVENTION: Antisense Inhibition of Hepatitis B TITLE OF INVENTION: Virus Replication
                                                                                                                                                                                                                                                                  TOPOLOCIAL: NO HYPOTHETICAL: NO
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PRIOR APPLICATION DATA: no
ATTORNEY/AGENT INFORMATION:
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OPERATING SYSTEM: WINDOWS FOR WORKGROUPS
SOFTWARE: WORDDERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/501,968
FILLING DATE: herewith
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NAME/KEY:
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LENGTH: 20 nucleotides
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (609) 779-2400
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,2
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ZIP: 08002
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210 Lake Drive
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100.0%; Pred. No. 1.7;
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East, Suite 201
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Pred. No.
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Best Local S
Matches 16
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                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 5646262
GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: ISPE
TELECOMMUNICATION INFORMATION:
TELEPHONE: (609) 779-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGIE NO HYPOTHETICAL: NO
ATTORNEY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                           APPLICANT: KORBA, Brent E.

APPLICANT: GERIN, John L.

TITLE OF INVENTION: Antisense Oligonuclectides Against
TITLE OF INVENTION: Hepatitis B Viral Replication
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MEDIUM TYPE: DISKETTE, 3.5
MEDIUM TYPE: STORAGE
COMPUTER: IBM 486
OPERATING SYSTEM: WINDOWS
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PRIOR APPLICATION DATA: none
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CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                      STREET: 3000 A C. CITY: Washington, D.C.
                                                  FILING DATE:
CLASSIFICATION: 514
                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
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100.0%; Pred. No. 1.
Live 0; Mismatches
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                                                                                    US/08/281,106
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1.7;
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                                                                          Query Match
Best Local (
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GENERAL INFORMATION:
APPLICANT: KORBA, Brent E.
APPLICANT: GERIN, John L.
                                                                                                                                                                                                             TELEX: 904136
[NFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
TELEPAX: 202 672 5399
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                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Antisense TITLE OF INVENTION: Hepatitis NUMBER OF SEQUENCES: 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: 202 672 5300
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                                                                                                                                                                   TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                             NAME: BENT, Stephen A. REGISTRATION NUMBER: 29,768 REFERENCE/DOCKET NUMBER: 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W. CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/281,106 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
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STRANDEDNESS: single
                                                                                                                                                                                                    LENGTH:
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                                                                          Similarity
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                             AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                    21 base pairs
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                                                            Conservative
                                                                                                                                        YES
                                                                                                                                                     linear
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Hepatitis B Viral Replication
                                                                        100.0%; Score 16; DB 1; Length 21; 100.0%; Pred. No. 1.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 16; DB 1; Length 21; 100.0%; Pred. No. 1.7;
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                                                          Mismatches
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RESULT 15
US-08-287;337A-5
US-08-287;337A-5
; Sequence 5; Application US/08287337A
; Patent No. 5728518
; Patent No. 5728518
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
FILING DATE:
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Giulio A. DeConti, Jr.
NAME: Giulio A. Deconti, Jr.
REGISTRATION UNUMER: 31,503
REFERENCE/DOCKET NUMBER: TTI-1
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1077-5941
                                                                                                                                                                                                                     Patent No. 5985662
GENERAL INFORMATION:
APPLICANT: Kevin
                                                                                                                                                                                                                                                           Sequence 7, Application US/08501968 Patent No. 5985662
                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
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APPLICANT: Ellen Carmichael
TITLE OF INVENTION: ANTIVIRAL OLIGONUCLOETIDE
NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (617) 227-59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: sir
TOPOLOGY: linear
MOLECULE TYPE: cDNI
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SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
            COMPUTER READABLE FORM: MEDIUM TYPE: DISKETTE,
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MEDIUM TYPE: Floppy
                                                                                                                                                                                   APPLICANT: Kevin Anderson and Lex Cowsert
TITLE OF INVENTION: Antisense Inhibition of Hepatitis
TITLE OF INVENTION: Virus Replication
                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                  STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
COMPUTER:
                                                  ZIP:
                                                              COUNTRY:
                                                                                                                  STREET:
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CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: BOSTON
STATE: MASSACHUSETTS
                                                                                                                                    ADDRESSEE:
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                                                                                                Cherry Hill
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                                                                                  됩
                                                                                                                  E: Jane Massey Licata, Esq. 210 Lake Drive East, Suite 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60 State Street, Suite 510
                                                                USA
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100.0%; Pred. No.
              3.5 INCH,
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                1.44 Mb STORAGE
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US-09-199-269-45
(S-09-199-269-45)
(Sequence 45, Application
(Patent No. 6503533)
(GENERAL INFORMATION)
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FILING DATE: herewith
CLASSIFICATION: 514
PRIOR APPLICATION: 514
PRIOR APPLICATION DATA: none
ATTORNEY/AGENT INFORMATION:
NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: ISPH
TELECOMMUNICATION INFORMATION:
TELEPHONE: (609) 779-2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (609) 779-8488 INFORMATION FOR SEQ ID NO:
                                     TELEX: 904136
INFORMATION FOR SEQ ID NO: 45:
SEQUENCE CHARACTERISTICS:
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ANTI-SENSE: YES
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                                                                                                                                                                                                                         COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: US/09/199, 269
FILING DATE: 25-No. 6503533-1998
CLASSIFICATION CUNBER: US/09/199, 269
FILING DATE: 25-No. 6503533-1998
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/281,106
FILING DATE: <Unknown>
PRIOR APPLICATION UNMBER: 08/281,106
FILING DATE: <Unknown>
APPLICATION THORMATION:
NAME: HERMY Stebben A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity hes 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W.
CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GERIN, John L.
TITLE OF INVENTION: Antisense Oligonucleotides Against Hepatitis B Viral Replication NUMBER OF SEQUENCES: 56
                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 202 672 5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: KORBA, Brent E.
GERIN, John L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                  NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 66683/112/GEUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAAGCCACCCAAGGCA 18
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TYPE: nucleic acid
                                                                                                         TELEFAX: 202 672 5399
                      ENGTH: 21 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09199269
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US-09-199-269-47
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Patent No. 6503533
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.0%; Score 16; I
Best Local Similarity 100.0%; Pred. No. 1.
Matches 16; Conservative 0; Mismatches
                                                                       Matches
                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                    TELEFAX: 202 672 5399
TELEX: 904136
INFORMATION FOR SEQ ID NO: 47:
SEQUENCE CHARACTERISTICS:
LENGTH: 21 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/281,106
FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 20007-5109

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTMARE: PStenntin Release #1.0, Version #1.25

CURRENT APPLICATION NUMBER: US/09/199,269

FILLING DATE: 25-No. 6503533-1998

CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 66683/112/GEUN
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
TOPOLOGY: linear
ANTI-SENSE: YES
SEQUENCE DESCRIPTION: SEQ ID NO: 45:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W.
CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: KORBA, Brent E. GERIN, John L.
                                                                                                                                                                                  ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Antisense Oligonucleotides Against Hepatitis B Viral Replication
                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO: 47:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                       16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 AAAGCCACCCAAGGCA 16
                                   1 AAAGCCACCCAAGGCA 16
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 AAAGCCACCCAAGGCA 21
                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                    NAME: BENT, Stephen A. REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09199269
                                                                       Conservative
                                                                                         100.0%;
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                                                                                       Score 16; I
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                    29,768
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                                                                         Mismatches
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                                                                                         DB 4; Length 21;
1.7;
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                                                                       Gaps
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RESULT 19 PCT-US95-00508-5

; Sequence 5, Application PC/TUS9500508

GENERAL INFORMATION:

APPLICANT: TATGETECH, INC.
TITLE OF INVENTION: ANTIVIRAL OLIGONUCLOETIDE
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:

STREET:

60 State Street, Suite 510

LAHIVE & COCKFIELD

DDRESSEE:

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Best Local S
Matches 16
                                                                                                                                                                                                                                                                      Sequence 7, Applicati
GENERAL INFORMATION:
APPLICANT: Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: (617) 227-74
TELEFAX: (617) 227-5941
[NFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                    APPLICANT: Kevin Anderson and Lex Cowsert
TITLE OF INVENTION: Antisense Inhibition of Hepatitis B
TITLE OF INVENTION: Virus Replication
NUMBER OF SEQUENCES: 40
CORRESPONDENCE ADDRESS:
ADDRESSET . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 31,503
REFERENCE/DOCKET NUMBER: TT
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Giulio A. DeConti, Jr.
REGISTRATION NUMBER: 31,503
                            COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb
MEDIUM TYPE: STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No. 08/181,557
FILING DATE: January 12, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: August
                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
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COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AAAGCCACCCAAGGCA 16
                                                                                        08002
                                                                                                                                         SSEE: Jane Massey Licata, Esq.
T: 210 Lake Drive East, Suite 201
Cherry Hill
                                                                                                                                                                                                                                                                                                            , Application PC/TUS9610984
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DEDNESS: single
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                   IBM 486
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WINDOWS FOR WORKGROUPS
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                                                                                                            FILING DATE:
APPLICATION NUMBER: 08/090,75
APPLICATION NUMBER: 01/13, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Thomas D. Brainard
REGISTRATION NUMBER: 32,459
REFERENCE/DOCKET NUMBER: 5284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPAX: (609) 779-848
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS
                                       TELEFAX: 708-938-2623
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                            FILING DATE: 27-NOV-
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                            SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08
FILING DATE: 27-NOV-1996
                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy (
COMPUTER: IBM PC comp
             SEQUENCE CHARACTERISTICS:
LENGTH: 23
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TITLE OF INVENTION:
TITLE OF INVENTION:
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REFERENCE/DOCKET NUMBER: IS:
TELECOMMUNICATION INFORMATION:
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CURRENT APPLICATION DATA:
                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: 708-937-4884
TELEPAX: 708-938-2623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 3
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                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy diskette
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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nucleic acid
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; TOPOLOGY: linear
; MOLECULE TYPE: Other nucleic acid (synthetic DNA)
US-08-758-626-13
                                                                                                                                                                                                                                                                                                                                                CT-US94-07684-13
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                                                                                                          Sequence 19, Application US/08480220A
Patent No. 5667974
                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                               Query Match
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Best Local Similarity
Matches 16; Conserv
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                                                                                         GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 708-938-2623
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
APPLICANT: Birkenmeyer, Larry
APPLICANT: Mushahwar, Isa K.
TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
NUMBER OF SEQUENCES: 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 32,459
REFERENCE/DOCKET NUMBER: 520
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708-937-4884
                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: Other nucleic acid (synthetic DNA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION: NAME: Thomas D. Brainard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/090,755
FILING DATE: JULY 13, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Floppy diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories
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TITLE OF INVENTION: NUCLEOTIDE SEQUENCES AND PROCESS FOR
TITLE OF INVENTION: AMPLIFYING AND DETECTION OF HEPATITIS B VIRAL
                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                           single
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20, Application US/08480220A Patent No. 5667974
        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/480,2
FILING DATE: 07 JUN 1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Porembski, Priscilla E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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ATTORNEY/AGENT INFORMATION:
NAME: POTembski, Priscilla E.
REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.U
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                             ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LEM FC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOPTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS: Abbott Laboratories D377/AP6D
ELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                               COUNTRY: USA
ZIP: 60064-3500
                                                                                                                                                                                                                                                                                    STREET: 100 Abbott Park Road CITY: Abbott Park
                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
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FILING DATE: 07 JUN 1995
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: nucleic acid
NDEDNESS: double
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                                                                                                                                             PatentIn Release #1.0,
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                                                                                                                                                                                                                                                                                                                                                                                                       Mushahwar,
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                   METHOD FOR DETECTING NUCLEIC ACID SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                             US/08/480,220A
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              5770.US.01
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Pred. No. 1.8;
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                                                                                                                                               Version #1.30
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TELEPHONE: 708/937-6365 TELEPAX: 708/938-2623

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Patent No. 5955598
GENERAL INFORMATION:
                                                               Query Match
Best Local /
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                                               Matches
                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 44 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 33,207
REFERENCE/DOCKET NUMBER: 5770.US.01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 708/937-6365
                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 08/480,220 FILING DATE: 07-JUN-1995 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PATENTIN Release #1.0, 1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/864,404
FILING DATE: 28-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
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APPLICANT: Mushahwar,
TITLE OF INVENTION: M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
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Local Similarity 100.0%;
nes 16; Conservative (
                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Abbott Laboratories D377/AP6D
STREET: 100 Abbott Park Road
CITY: Abbott Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
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                                                            Local
                                                                                                                                                                                                                                                                                                                               NAME: Porembski, Priscilla E.
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                                             16; Conserv
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                                                                                                                                                                     nucleic acid
AAAGCCACCCAAGGCA 16
                                                                                                                       TYPE: genomic DNA
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Mushahwar, Isa K.
                                               Conservative
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                                                          100.0%;
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                                                          Score 16; DB :
Pred. No. 1.8;
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                                               Mismatches
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                                                                           DB 2;
                                                                            Length 44;
                                               Indels
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RESULT 26 1
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US-08-758-626-25/c
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/06/864,404
FILING DATE: 28-MAY-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/480,220
FILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: POTEMBSKI, PRISCILLA E.
NAME: POTEMBSKI, PRISCILLA E.
                                                                                                                                                                            Sequence 25, Application US/08758626
Patent No. 5736334
                                                                                                                                                                                                                                                                                                                                                     Matches
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Best Local Similarity
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                              NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories
                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: li
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Birkenmeye APPLICANT: Mushahwar,
                                                                                                               TITLE OF INVENTION:
                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: METHOD FOR DETECTING NUCLEIC ACID
TITLE OF INVENTION: SEQUENCE USING COMPETITIVE AMPLIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 100 Abbott Park Road
CITY: Abbott Park
STATE: Illinois
                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 708/938-2623
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REFERENCE/DOCKET NUMBER:
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COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENGTH:
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                               Abbott Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic acid
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               Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44 base pairs
                                             One Abbott Park Road
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                                                                                                               NUCLEOTIDE SEQUENCES AND AMPLIFYING AND DETECTION
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                     Mismatches
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                                                                                                               PROCESS FOR OF HEPATITIS B VIRAL DNA
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COMPUTER READABLE FORM:

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GENERAL INFORMATION:
APPLICANT: ABBOTT LABORATORIES
TITLE OF INVENTION: NUCLECTIDE
TITLE OF INVENTION: AMPLIFYING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
TELEFAX: 708-938-2623
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 708-938-2623
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDLIM TYPE: Floppy diskette
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Wordperfect
                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: 708-937-4884
                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Thomas D. Brainard
REGISTRATION NUMBER: 32,459
REFERENCE/DOCKET NUMBER: 5284.PC.01
                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 08/090,755
FILING DATE: JULY 13, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Thomas D. Brainard
REGISTRATION NUMBER: 32,459
REFERENCE/DOCKET NUMBER: 5284.US.01
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Abbott Laboratories
STREET: One Abbott Park Road
CITY: Abbott Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
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CURRENT APPLICATION DATA:
                                                                                                                                                    APPLICATION NUMBER: US 08/
FILING DATE: JULY 13, 1993
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: doubl
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/0
FILING DATE: 27-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                          60064-3500
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16; Conserv
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                                                                                                                                                                                                                                                                                                                                                            Illinois
                                                                                                                                                                                                                                                                                                                                             USA
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Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCES AND PROCESS FOR AND DETECTION OF HEPATITIS B VIRAL DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-890-735C-3/c
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LENGTH: 61
TYPE: DNA
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10, Application US/08098313
Patent No. 5532124 /
GENERAL INFORMATION:
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CURRENT FILING DATE: 1997-07-11
NUMBER OF SEQ ID NOS: 18
SOFTWARE: Patentin version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bristol-Myers Squibb Company
TITTO OF INTERNITION: HEPADNAVIRUS CORES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: HI
APPLICATION NUMBER: US/08/098,313
FILLING DATE: October 6, 1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 654,064 and PCT/US91/07294
FILING DATE: February 11, 1991 and October 4, 1991
                                                                                                                    SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: GETTITLE OF INVENTION: Id.
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Thomas Jefferson University and APPLICANT: Timothy Block and Robert Grafstrom TITLE OF INVENTION: Genetically Engineered Bacteria To TITLE OF INVENTION: Identify and Produce Medically Important Agents
                                                                                                                                                                                                                                      ZIP: 19103
                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                         CITY: Philadelphia
                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Mackiewicz & No.
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STRANDEDNESS: doub
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 h 100.0%; Score 16; DB 4; Length 61; Similarity 100.0%; Pred. No. 1.8; 16; Conservative 0; Mismatches 0; Indels
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Similarity 100.0%;
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Mackiewicz & No. 5532124ris
e Liberty Place - 46th Floor
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Pred. No.
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                                                                            PCT-US92-01188-10
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                   Query Match
Best Local :
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Best Local Similarity
 Matches
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                       TELEPHONE: (215) 568-310
TELEPAX: (215) 568-3439
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 654,064 and PCT/US91/07294
FILING DATE: February 11, 1991 and October 4,
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Thomas Jefferson University and APPLICANT: Thomas Jefferson University and APPLICANT: Timothy Block and Robert Grafstrom TITLE OF INVENTION: Genetically Engineered Bacteria To TITLE OF INVENTION: Identify and Produce Medically Important Agents NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                            NAME: Jane Massey Licata
REGISTRATION NUMBER: 32,257
REFERENCE/DOCKET NUMBER: TJU-0621
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/01188
FILING DATE: 19910211
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb STORAGE
                                                                                           TOPOLOGY:
                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
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NAME: Lori Y. Beardell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: WORDPERFECT 5.0
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CITY: Philadelphia
                                                                                                                               STRANDEDNESS:
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STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Mackiewicz & Norris
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Woodcock Washburn Kurtz
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l Similarity
16; Conserv
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 Conservative
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               100.0%; Score 16; DB 5; Length 69; 100.0%; Pred. No. 1.8;
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RESULT 33
US-08-287-337A-9/c
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US-08-697-404-12/c
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                                                                                                                       Matches
                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Paul D. Yasger
REGISTRATION NUMBER: 37,477
REFERENCE/DOCKET NUMBER: 56
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: System 7.0.1
SOFTWARE: Microsoft Word 5.1a
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/697,404
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 60064-3500
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Macintosh
                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: PRIMER SERIES
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                                                                                                                                                                                                             STRANDEDNESS: don TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                          TELEPHONE: 700/...
TELEPHONE: 708/938-2623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Abbott Laboratories
STREET: 100 Abbott Park Road
CITY: Abbott Park
STATE: Illinois
                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                        LENGTH:
                                                             33 AAAGCCACCCAAGGCA 18
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                                                                                                                       16;
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                                                                                                                  n 100.0%; S
Similarity 100.0%; F
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S. R. Bouma
                                                                                                                                                                                              genomic DNA (HBV)
                                                                                                                                                                                                                            double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WIDE DYNAMIC RANGE NUCLEIC ACID DETECTION USING AN AGGREGATE
                                                                                                                                                                                                                                                                                                                                                                                                                                           US/08/444,615A
                                                                                                                                                                                                                                                                                         12:
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                                                                                                                                     Score 16; DB 2; Length 72; Pred. No. 1.8;
                                                                                                                     Mismatches
                                                                                                                       Indels
                                                                                                                       0
                                                                                                                       Gaps
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Sequence 9, Application US/08287337A Patent No. 5728518

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GENERAL INFORMATION:
APPLICANT: Ellen Carmichael
TITLE OF INVENTION: ANTIVIRAL OLIGONUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510

ANTIVIRAL OLIGONUCLOETIDE

MASSACHUSETTS

USA

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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MEDIUM TYPE: Floppy disk

COMPUTER: IEM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: ASCII text

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (617) 227-5941 INFORMATION FOR SEQ ID NO:
                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: EP 90124775
                                                                                                                                                                                                  ZIP: 55402-2111
COMPUTER READABJE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB
MEDIUM TYPE: Storage
                                                                                                                     SOFTWARE: Microsoft Word for Windows
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Thoma, Hans
TITLE OF INVENTION: A Composition Used as a
TITLE OF INVENTION: Therapeutic Agent Against Chronic Viral Hepatic Diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 81 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Giulio A. DeConti,
REGISTRATION NUMBER: 31,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION NUMBER:
                                                                                              FILING DATE:
                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                COMPUTER: IBM Compatible Compaq Prolinea 4/66
OPERATING SYSTEM: MS-DOS Version 5
                                                                                                                                                                                                                                                                                                                STREET: 80 South (CITY: Minneapolis
                                                                                                                                                                                                                                                                                                                                                            RRESPONDENCE ADDRESS:
ADDRESSEE: Thomas E. Popovich, Thomas Popovich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ce 8, Application US/08075520A
NO. 6020167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49 AAAGCCACCCAAGGCA 34
G DATE: December 19, 1990
CATION NUMBER: PCT/EP91/02460
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                                                                                                                                                                                                                                                                                                 Minnesota
                                                                                                                                                                                                                                                                                                                                   E: & Associates
80 South 8th Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 16; DB llarity 100.0%; Pred. No. 1.8; Conservative 0; Mismatches
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                                                                                          January 31, 1994
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                                                                                                          US/08/075,520A
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                                                                                                                                                                                    APPLICATION NUMBER: US/08/075,520A
FILING DATE: January 31, 1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: BP 90124775
FILING DATE: December 19, 1990
APPLICATION NUMBER: PCT/EP91/02460
FILING DATE: December 19, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Thomas E. Popovich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                               TELEFAX: (612) 334-899
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                     REGISTRATION NUMBER: 30099
REFERENCE/DOCKET NUMBER: 379
TELECOMMUNICATION INFORMATION:
TELEPHONE: (612) 334-8991
                                                                                                                                                                                                                                                                                                                                                          ZIP: 55402-2111

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB
MEDIUM TYPE: Storage
COMPUTER: IBM Compatible Compaq Prolinea
OPERATING SYSTEM: MS-DOS Version 5
SOFTWARE: Microsoft Word for Windows
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Thoma, FITTLE OF INVENTION:
                                                                                           JECOPHANE: (612) 3
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ATTORNEY/AGENT INFORMATION:
NAME: Thomas E, Popovich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 3757/MED1001US TELECOMMUNICATION INFORMATION:
                STRANDEDNESS: Single
                                TYPE: Nucleic Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 80 South of CITY: Minneapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: USA
                                                    ENGTH:
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STRANDEDNESS: Single
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                                                    291 bp
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Linear
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                                                                                                    334-8994
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Therapeutic Agent Against Chronic Viral Hepatic Diseases
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Best Local Similarity

100.0%;

Pred. No. 1.8;

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                                                                                                                                            RESULT 37
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Best Local
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     GENERAL INFORMATION:

APPLICANT: No. 6277631h, Michael
APPLICANT: Broeker, Michael
TITLE OF INVENTION: Recombinant |
TITLE OF INVENTION: Immunoreacti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
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TELEFAX: (612) 334-8994
INFORMATION FOR SEQ ID NO: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Thomas E. Popovich
REGISTRATION NUMBER: 30099
REFERENCE/DOCKET NUMBER: 3757/MED1001US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatible Compaq Prolinea 4/66
OPERATING SYSTEM: MS-DOS Version 5
SOFTWARE: Microsoft word for Windows
CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA:
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TITLE OF INVENTION: A Composition Used as a
TITLE OF INVENTION: Therapeutic Agent Against Chronic Viral Hepatic Diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: EP 90124775
FILING DATE: December 19, 1990
APPLICATION NUMBER: PCT/EP91/02460
FILING DATE: December 19, 1991
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MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB
MEDIUM TYPE: Storage
                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                             TYPE: Nucleic Acid
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STREET: 80 South 8th Street
                                                                                    ce 2, Application US/08445585
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                                                                                                                                                                                                                                                            Similarity 100.
16; Conservative
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6020167 /
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Michael
Recombinant Proteins with the
Remunoreactivity of Hepatitis B Virus E Antigen (HBeAG), A
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US-08-075-520A-4/c
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; LOCATION:
US-08-445-585-2
                                                                                                                                                                                                                                                                            Sequence 4, Application US/08075520A Patent No. 6020167
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
COUNTRY: USA
ZIP: 55402-2111
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
MEDIUM TYPE: Storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/846,194
FILING DATE: 06-MAR-1992
APPLICATION NUMBER: DE P 41 07 61:
PILING DATE: 03-SEP-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Ogden, Stasia L.
REGISTRATION NUMBER: P-36
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                      NUMBER OF SEQUENCES: 40
CORRESPONDENCE ADDRESS:
ADDRESSEE: Thomas E. Popovich,
ADDRESSEE: & Associates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                         TITLE OF INVENTION: A Composition Title OF INVENTION: Therapeutic
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                                                                                                    STREET: 80 South CITY: Minneapolis
                                                                                    STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 22-MA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
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                                                                                    Minnesota
                                                                                                                      E: & Associates
80 South 8th Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477 base pairs
ucleic acid
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                                                                                                                                                                                                                                             Thoma, Hans
                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 16; Dilarity 100.0%; Pred. No. 1.:
Conservative 0; Mismatches
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 Diskette,
Storage
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                                                                                                                                                                                                         Composition Used as herapeutic Agent Aga:
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                   3.5 inch, 1.44 MB
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                                                                                                                                                          Thomas Popovich
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Against Chronic Viral Hepatic Diseases
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OPERATING SYSTEM:

IBM Compatible Compag Prolinea 4/66

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RESULT 39
US-08-075-520A-5/c
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                                                                               COMPUTER: IBM Compatible Compag Prolinea 4/66
OPERATING SYSTEM: MS-DOS Version 5
SOFTWARE: Microsoft Mord for Windows
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/075,520A
FILING DATE: January 31, 1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: EP 90124775
FILING DATE: December 19, 1990
APPLICATION NUMBER: PCT/EP91/02460
FILING DATE: December 19, 1991
ATTORNEY/AGRAYT TUNDORMATTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 5, Application US/08075520A Patent No. 6020167
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APPLICANT: Thoma, Hans
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                   ATTORNEY/AGENT INFORMATION:
NAME: Thomas E. Popovich
REGISTRATION NUMBER: 300
                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
MEDIUM TYPE: Storage
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: A Composition Used as a TITLE OF INVENTION: Therapeutic Agent Against Chronic Viral Hepatic Diseases NUMBER OF SEQUENCES: 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: PCT/EP91/03
FILING DATE: December 19, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Thomas E. Popovich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 30099
REFERENCE/DOCKET NUMBER: 3757/MED1001US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (612) 334-8991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: January CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Microsoft word for Windows CURRENT APPLICATION DATA:
                  REFERENCE/DOCKET NUMBER:
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Local Similarity 100.0%; Pred. No. 1.9;
hes 16; Conservative 0; Mismatches
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ADDRESSEE: & Associates
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STRANDEDNESS: Single
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80 South 8th Street
                                                                                                                                                                                                                                                                                                                                                                                                                      USA
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UMBER: PCT/EP91/02460
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                                   30099
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                3757/MED1001US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Thomas Popovich
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                                                              Matches
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Best Local
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APPLICANT: Thoma, H
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (612) 334-8994
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 588 bp
                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 3099
REFERENCE/DOCKET NUMBER: 37
TELECOMMUNICATION INFORMATION:
TELEPHONE: (612) 334-8991
                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: EP 90124775
FILING DATE: December 19, 1990
APPLICATION NUMBER: PCT/EB91/024
FILING DATE: December 19, 1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: MS-DOS Version 5
SOFTWARE: Microsoft Word for Windows
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB
MEDIUM TYPE: Storage
COMPUTER: IBM Compatible Compac Prolinea
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ADDRESSEE: Thomas E.
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                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 80 South & CITY: Minneapolis
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ZIP: 55402-21
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TYPE: Nucleic Acid
STRANDEDNESS: Single
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                                                                             Similarity
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                             AAAGCCACCCAAGGCA 16
AAAGCCACCCAAGGCA 10
                                                                                                                                                                                                                                                                                                         Thomas E. Popovich
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                                                            Conservative
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100.0%; Pr
-+ive 0;
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Therapeutic Agent Against Chronic Viral Hepatic Diseases
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100.0%; Pred. No. 1.
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Search completed: March 31, 2005, 14:16:27 Job time: 120 secs

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Perfect score:
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| Cgn2 6/ptodata/1/pubpna/USO7_NEW PUB.seq:*
| Cgn2 6/ptodata/1/pubpna/USO6_NEW PUB.seq:*
| Cgn2 6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
| Cgn2 6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
| Cgn2 6/ptodata/1/pubpna/USO9_NEW PUB.seq:*
| Cgn2 6/ptodata/1/pubpna/USO9 NEW PUB.seq:*
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| Cgn2 6/ptodata/1/pubpna/USO9 PUBCOMB.seq:*
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                S-09-888-164-29
5-10-453-792-17
S-09-877-478-1755
S-09-877-478-2378
S-10-342-902-2378
S-10-669-841-1755
S-10-669-841-2181
S-10-659-841-2181
S-10-453-792-49
S-10-453-792-49
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- 2005 Compugen
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N N A K I I I I I I I I I I I I I I I I I I	Sequence 19339, A Sequence 14604, A Sequence 17604, A Sequence 2769, App Sequence 2769, App Sequence 271, App Sequence 1379, App Sequence 1379, App Sequence 1379, App Sequence 1374, App Sequence 1340, App Sequence 134221, Sequence 23913, A Sequence 23913, A Sequence 23913, A Sequence 1410, App Sequence 1410, App Sequence 1410, App Sequence 1569, Ap Sequence 1569, Ap Sequence 1910, App Sequence 190, App Sequence 1910, App Sequence 59, Appl Sequence 193713, A Sequence 192763, Appl Sequence 59, Appl
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Sequence 29, Application US/09888164
; Publication No. US20030119724A1
; GENERAL INFORMATION:
; APPLICANT: Ts'o, Paul O.P.
; APPLICANT: Ts'o, Paul O.P.
; APPLICANT: Hangeland, Jon
; APPLICANT: Deamond, Scott
; APPLICANT: Deamond, Scott
; APPLICANT: Roby, Clinton
; TITLE OF INVENTION: LIGANDS TO ENHANCE CELLULAR UPTAKE OF BIOMOLECULES
; FILE REFERENCE: 212241
; CURRENT APPLICATION NUMBER: US/09/888,164
; CURRENT FILING DATE: 2001-09-10
; PRIOR APPLICATION NUMBER: 09/282,455
; PRIOR APPLICATION NUMBER: 08/755,062
; PRIOR 
; TYPE: DNA;
; ORRANISM: Artificial Sequence;
; FEATURE;
; OTHER INFORMATION: Control oligomer
US-09-888-164-29
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US-10-437-963-42332
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US-08-979-847-130
US-08-979-847-130
US-08-979-847-131
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US-08-979-847-130
US-08-979-847-131
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42332, A
78, Appl
6148, Ap
3376, Ap
135451,
86247, A
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US-10-453-792-41
                                                                     Matches
                                                                                   Query Match
Best Local Similarity
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Best Local
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COUNTRY: U.S.A.

COMPUTER READABLE FORM:

MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
CURRENT APPLICATION INTERE: US/09/153,792
FILING DATE: 04-Jun-2003
CLASSIFICATION NUMBER: US/09/155,885A
APPLICATION NUMBER: US/09/155,885A
APPLICATION NUMBER: US/09/155,885A
APPLICATION NUMBER: PC-TEP97/02002
FILING DATE: 21-APR-1998
APPLICATION NUMBER: PS/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: PS/EP97/02002
FILING DATE: 11-APR-1997
APPLICATION NUMBER: PS/EP97/02002
FILING DATE: 11-APR-1997
APPLICATION NUMBER: PS/EP97/02002
FILING DATE: 11-APR-1996
APTORNEY/AGENT INFORMATION:
NAME: SADOFF, B.J.
REFERENCE/DOCKET NUMBER: 35,663
REFERENCE/DOCKET NUMBER: 2551-5
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                       TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
ANTI-SENSE: NO
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: STUYVER, LIEVEN
ROSSAU, RUDI
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                         1 AAAGCCACCCAAGGCA 16
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16; Conservative
                                                                                                                                                                                                                                                                     LENGTH: 16 base pairs TYPE: nucleic acid
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nilarity 100.0%;
Conservative 0
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Pred. No. 9
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Pred. No. 9.9;
                                                                 Mismatches
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9.9;
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RESULT 3 US-09-877-478-1755/c

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; ORGANISM: Hepatitis B virus
US-09-877-478-1755
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Matches
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APPLICANT: Ribozyme Pharmaceuticals, Inc.
APPLICANT: Draper, Kenneth
APPLICANT: Blatt, Larry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Publication No.
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                                                                                                                                                                                                                                                                                              APPLICANT: McSwiggen, Jim
APPLICANT: McTrissey, Dave
APPLICANT: McTrissey, Dave
TITLE OF INTERVENTION: Method and Reagent for Inhibiting Hepatitis B Virus Replication
FILE REFERENCE: MBHB00-845-H (400/029)
CURRENT APPLICATION NUMBER: US/09/877,478
CURRENT FILING DATE: 2001-12-31
                                                                                                                                                              PRIOR APPLICATION NUMBER: US 07/882,712
PRIOR FILING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-08-09
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PRIOR FILING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-08-09
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TITLE OF INVENTION: Method and Reagent for Inhibiting Hepatitis B Virus Replication
FILE REFERENCE: Method 45-H (400/029)
CURRENT APPLICATION NUMBER: US/09/877,478
CURRENT FILING DATE: 2001-12-31
                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
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APPLICANT: Draper, Kenneth
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APPLICATION NUMBER: US 08/193,627
FILING DATE: 1994-02-07
                                                                FILING DATE: 2000-10-24
APPLICATION NUMBER: US 08/193,627
FILING DATE: 1994-02-07
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APPLICATION NUMBER: US 08/434,504
APPLICATION NUMBER: US 08/433,993
FILING DATE: 1995-05-04
APPLICATION NUMBER: US 08/434,504
                                                                                                                                       APPLICATION NUMBER: US 09/696,347
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US-10-342-902-2378/c
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GENERAL INFORMATION:

APPLICANT: Sirna Therapeutics, APPLICANT: Draper, Kenneth APPLICANT: Blatt, Larry

Draper, Kenno Blatt, Larry

PPLICANT:

Sequence 2378, Application US/10342902 Publication No. US20040054156A1

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TITLE OF INVENTION: Wethod and Reagent for Inhibiting Hepatitis B Virus Replication FILE REFERENCE: 400/075 (MBHB00-845-I)
CURRENT APPLICATION NUMBER: US/10/342,902
CURRENT FILING DATE: 2003-01-15
PRIOR APPLICATION NUMBER: US 09/877,478
PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 09/877,478
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR APPLICATION NUMBER: US 09/536,385
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-03-20
PRIOR FILING DATE: 2000-09-09
PRIOR APPLICATION NUMBER: US 09/636,347
PRIOR APPLICATION NUMBER: US 08/193,627
PRIOR APPLICATION NUMBER: US 09/436,430
PRIOR FILING DATE: 1994-02-07
PRIOR APPLICATION NUMBER: US 09/436,430
PRIOR FILING DATE: 1992-05-14
PRIOR APPLICATION NUMBER: US 09/436,430
PRIOR FILING DATE: 1992-11-08
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US-09-877-478-2378
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LENGTH: 17
                                                                              Matches
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Best Local (
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SOFTWARE: PatentIn version 3.0
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TYPE: RNA
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TYPE: RNA
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16 AAAGCCACCCAAGGCA 1
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                       1 AAAGCCACCCAAGGCA 16
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Morrissey, Dave
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Blatt, Larry
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Pred. No.
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; ORGANISM: Hepatitis B virus
US-10-342-902-2378
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APPLICANT: Kenneth, Draper
APPLICANT: Elisabeth, Roberts
APPLICANT: Elisabeth, Roberts
TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS /
TITLE OF INVENTION: VIRUS REPLICATION
FILE REFERENCE: 400/042US (MeHBO2-249-E)
CURRENT APPLICATION NUMBER: US/10/669,841
CURRENT FILING DATE: 2003-09-23
PRIOR APPLICATION NUMBER: PCT/US02/09187
PRIOR FILING DATE: 2002-03-26
                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: HS 60/297
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PRIOR FILING DATE: 2001-06-08
PRIOR APPLICATION NUMBER: US 09/531,025
PRIOR FILING DATE: 2000-03-20
PRIOR APPLICATION NUMBER: US 09/636,385
PRIOR FILING DATE: 2000-08-09
PRIOR FILING DATE: 2000-08-09
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EQ ID NO 2378
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                                                                                   FILING DATE: 2002-03-11
APPLICATION NUMBER: US 09/817,879
FILING DATE: 2001-03-26
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APPLICATION NUMBER: US 60/363,124
                                                                                                                                                                           APPLICATION NUMBER: US 60/358,580 FILING DATE: 2002-02-20
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ENT APPLICATION NUMBER: US/10/342,902
ENT FILING DATE: 2003-01-15
                                                             APPLICATION NUMBER: US 09/740,332
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FILING DATE: 2001-12-05
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APPLICATION NUMBER: US 08/193,627
FILING DATE: 1994-02-07
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James, McSwiggen
: 2000-12-18
NUMBER: US 09/611,931
: 2000-07-07
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Pred. No. 9.8;
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US-10-669-841-2181
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US-10-669-841-2181/c
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; TYPE: RNA
; ORGANISM: Hepatitis B Virus
US-10-669-841-1755
                                                                                                                                                          SOFTWARE: Pat
SEQ ID NO 2181
                                          Query Match
        Matches
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SEQ ID NO 1755
                                                                                                                                                                                              Remaining Prior Application data removed NUMBER OF SEQ ID NOS: 16207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Patrice, Lee
APPLICANT: Kenneth, Draper
APPLICANT: Elisabeth, Roberts
TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS
TITLE OF INVENTION: VIRUS REPLICATION
FILE REFERENCE: 400/042US (MBHB02-249-E)
CURRENT APPLICATION NUMBER: US/10/669,841
CURRENT APPLICATION NUMBER: US/10/669,841
ERIOR APPLICATION NUMBER: D03-09-23
PRIOR APPLICATION NUMBER: PCT/US02/09187
PRIOR PILING DATE: 2002-03-26
PRIOR FILING DATE: 2002-03-26
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                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: US 09/504,321
PRIOR FILING DATE: 2000-02-15
                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 09/740,332
PRIOR FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: US 09/611,931
PRIOR FILING DATE: 2000-07-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/335,059
PRIOR FILING DATE: 2001-10-24
PRIOR APPLICATION NUMBER: US 60/337,055
PRIOR FILING DATE: 2001-12-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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PRIOR FILING DATE: 2001-06-08
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 09/504,321 PRIOR FILING DATE: 2000-02-15
                                                                                                                                        ENGTH:
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                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 09/817,879 FILING DATE: 2001-03-26
                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 2002-03-11
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 60/363,124
                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 60/358,580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION
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                          Similarity
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      Conservative
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                    100.0%;
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                      Score 16;
Pred. No.
    Mismatches
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                                      DB 18;
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                                    Length 17;
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US-10-244-647-54/c
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Sequence 49, Application US/10453792
Publication No. US20040029110A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                            US-10-453-792-49
Sequence 54, Application US/10244647
Publication No. US20030206887A1
GENERAL INFORMATION:
APPLICANT: Ribozyme Pharmaceutical, Inc.
APPLICANT: Morrissey, David
APPLICANT: McSwiggen, James
                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: 111
MOLECULE TYPE: DNJ
HYPOTHETICAL: NO
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/453,792
FILING DATE: 04-Jun-2003
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCE ADDRESS:
CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHYE P.C.
CTREST: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE DESCRIPTION: SEQ ID NO: 49:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 816-4000
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TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: STUYVER, LIEVEN
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                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 18 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/155,885A FILING DATE: 08-Oct-1998 APPLICATION NUMBER: PCT/EP97/02002 FILING DATE: 21-APR-1997 APPLICATION NUMBER: EP 96870053.4 FILING DATE: 19-APR-1996
                                                                                                                                                                                                  AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
REFERENCE/DOCKET NUMBER: 2551-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: VIRGINIA COUNTRY: U.S.A.
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                                                                                                                                                                                                                                                                            Conservative
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Pred. No. 9
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; OTHER INFORMATION: Description of Artificial Sequence: US-10-244-647-574
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                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
                                                                                                                                                                                                SOFTWARE: PatentIn version 3.0 SEQ ID NO 574
  Matches
                                      Query Match
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LENGTH: 19
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Short Interfering Nucleic Acid (sina) FILE REFERENCE: 400/060 (MBHB02-1000) CURRENT APPLICATION NUMBER: US/10/244,647 CURRENT FILING DATE: 2003-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Morrissey, David
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Ribozyme Pharmaceutical, Inc
APPLICANT: Morrissey, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR APPLICATION NUMBER: US 60/296,876
                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 1524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/244,647 CURRENT FILING DATE: 2003-04-14
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TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHBO2-1000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2001-06-08
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                                                                                                                          TYPE: RNA ORGANISM: Artificial Sequence
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                                                                                                                      FEATURE:
                                                                                                                                                                               ENGTH: 19
                     Local
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                     Similarity
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Conservative
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                   100.0%; Score 16; DB
100.0%; Pred. No. 9.7;
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Pred. No.
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                                      DB 17;
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                                      Length 19;
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  Indels
                                                                                                 Target sequence/siNA sense
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OTHER INFORMATION: Description of Artificial Sequence: US-10-244-647-577
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US-10-244-647-576/c
                                                                                                                                                            SOFTWARE: PatentIn
SEQ ID NO 577
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                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILLING DATE: 2003-04-14
CURRENT FILLING DATE: 2003-04-14
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SEQ ID NO 576
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                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: US 60/358,580 PRIOR FILING DATE: 2002-02-20 PRIOR APPLICATION NUMBER: US 60/393,924 PRIOR FILING DATE: 2002-07-03
                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 1524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Ribozyme Pharmaceutical, Inc
APPLICANT: Morrissey, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)

TITLE OF INVENTION: Short Interferency Nucleic Acid (sina)

FILE REFERENCE: 400/060 (MBHB02-1000)

CURRENT APPLICATION NUMBER: US/10/244,647

CURRENT FILING DATE: 2003-04-14

PRIOR APPLICATION NUMBER: US 60/358,580

PRIOR FILING DATE: 2002-02-20

PRIOR APPLICATION NUMBER: US 60/393,924

PRIOR APPLICATION NUMBER: US 60/393,924

PRIOR APPLICATION NUMBER: DCT US02/09187

PRIOR FILING DATE: 2002-03-26

PRIOR FILING DATE: 2002-03-26

PRIOR FILING DATE: 2001-06-08

NUMBER OF SEQ ID NOS: 1524
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                                                                  TYPE: RNA
ORGANISM: Artificial Sequence
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McSwiggen, James
Beigelman, Leonid
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llarity 100.0%; Pred. No. 9.
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APPLICANT: Morrissey, David

APPLICANT: McSwiggen, James
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APPLICANT: McSwiggen, James
ITITE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
ITITE OF INVENTION: Short Interfering Mucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-100)
CURRENT FILING DATE: 2003-04-14
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-06-08
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CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
PRIOR APPLICATION NUMBER: US 60/358,580
PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR PELICATION NUMBER: PCT US02/09187
PRIOR PELICATION NUMBER: US 60/296,876
PRIOR APPLICATION NUMBER: US 60/296,876
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US-10-244-647-700
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APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus (HBV)
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
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Best Local :
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; OTHER INFORMATION: Description
US-10-244-647-1220
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                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                               Sequence 1223, Application US/10244647 Publication No. US20030206887A1
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 1222
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 1220
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FILE OF INVENTION: Short Interfering Nucleic Acid (sina)

FILE REFERENCE: 400/060 (MBHB02-1000)

CURRENT APPLICATION NUMBER: US/10/244,647

CURRENT FILING DATE: 2003-04-14

PRIOR APPLICATION NUMBER: US 60/358,580

PRIOR FILING DATE: 2002-02-20

PRIOR APPLICATION NUMBER: US 60/393,924

PRIOR PILING DATE: 2002-07-03

PRIOR PILING DATE: 2002-07-03

PRIOR PILING DATE: 2002-03-08

PRIOR PILING DATE: 2002-03-08
                APPLICANT: Ribozyme Pharmaceutical, Inc.
APPLICANT: Morrissey, David
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: Rhor Interference Mediated Inhibition of Hepatitis B Virus
TITLE OF INVENTION: Short Interfering Nucleic Acid (SiNA)
FILE REFERENCE: 400/060 (MBHB02-1000)
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APPLICANT: Morrissey, David
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CURRENT APPLICATION NUMBER: US/10/244,647
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ORGANISM: Artificial Sequence
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Beigelman, Leonid
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                Sequence 4, Application US/09756500 Patent No. US20010001098A1 GENERAL INFORMATION:
APPLICANT: Lu,
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; ORGANISM: Hepatitis B virus US-10-244-647-1296
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PRIOR FILING DATE: 2002-02-20
PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 1524
SOFTWARE: PatentIn version 3.0
SEQ ID NO 1296
LENGTH: 23
TYPE: RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 1524
SOFTWARE: PatentIn version 3.0
SEQ ID NO 1223
                                                                             Matches
                                                                                                  Best
                                                                                                                     Query Match
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APPLICANT: McSwiggen, James
APPLICANT: McSwiggen, James
APPLICANT: Beigelman, Leonid
TITLE OF INVENTION: RNA Interference Mediated Inhibition of Hepatitis B Virus
TITLE OF INVENTION: Short Interfering Nucleic Acid (sina)
FILE REFERENCE: 400/060 (MBHB02-1000)
CURRENT APPLICATION NUMBER: US/10/244,647
CURRENT FILING DATE: 2003-04-14
PRIOR APPLICATION NUMBER: US 60/358,580
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PRIOR APPLICATION NUMBER: US 60/393,924
PRIOR FILING DATE: 2002-07-03
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR APPLICATION NUMBER: PCT US02/09187
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/296,876
PRIOR FILING DATE: 2001-06-08
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Ribozyme Pharmaceutical, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: RNA ORGANISM: Artificial Sequence
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Pred. No.
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Pred. No.
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RESULT 20
US-10-394-896-8/c
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Publication No. US20030235591A1
GENERAL INFORMATION:
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TELEPHONE: (612) 334-8991
TELEFAX: (612) 334-8994
INFORMATION FOR SEQ ID NO: 8:
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PRIOR FILING DATE: 1999-09-21
PRIOR APPLICATION NUMBER: US 60/101,311
PRIOR PILING DATE: 1998-09-21
NUMBER OF SEQ ID NOS: 4
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CURRENT APPLICATION NUMBER: US/09/756,500
CURRENT FILING DATE: 2001-01-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Herrmann, John E.
TITLE OF INVENTION: HERATITIS B CORE ANTIGEN NUCLEIC ACID
TITLE OF INVENTION: VACCINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: RNA
ORGANISM: Human Hepatitis B Virus
                                                 ATTORNEY/AGENT INFORMATION:
NAME: Thomas E. Popovich
REGISTRATION UNMBER: 30099
REFERENCE/DOCKET NUMBER: 37
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                     CLASSIFICATION DATA:
PRIOR APPLICATION UMBER: EP 90124775
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APPLICATION NUMBER: U
FILING DATE: January
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette,
MEDIUM TYPE: Storage
                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Microsoft Wolcurrent Application DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: A Composition Used as a TITLE OF INVENTION: Therapeutic Agent Against Chronic Viral Hepatic Diseases NUMBER OF SEQUENCES: 40
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                                                                                                                                                  APPLICATION NUMBER: EP 90124775
FILING DATE: December 19, 1990
APPLICATION NUMBER: PCT/EP91/02460
FILING DATE: December 19, 1991
                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: MARCH
                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM Compatible Compaq Prolinea 4/66
OPERATING SYSTEM: MS-DOS Version 5
SOFTWARE: Microsoft Word for Windows
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ADDRESSEE: Thomas E. Popovich, Thomas Popovich
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21, 2003
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US-10-394-896-11/c
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Best Local 9
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                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/EP
FILING DATE: December 19,
ATTORNEY/AGENT INFORMATION:
NAME: Thomas E. Popovich
                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE: December
                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: MS-DOS Version 5
SOFTWARE: Microsoft Word for Windows
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/394,896
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MEDIUM TYPE: Diskett
MEDIUM TYPE: Storage
COMPUTER: IBM Compat
                                                                                                                                                                                                                           REGISTRATION NUMBER: 30099
REFERENCE/DOCKET NUMBER: 37
TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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                                                                 Local Similarity
                                                                                                                               TYPE: Nucleic Acid
STRANDEDNESS: Single
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ADDRESSEE:
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TOPOLOGY: Linear
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Similarity 100.0%; Pred. No.
16; Conservative 0; Mismatch
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3YSTEM: MS-DOS Version 5
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                                                                                                                                                                                                                 (612) 334-8991
                                                                                                                                                                                                                                                                                                                        December 19,
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Therapeutic Agent Against Chronic Viral Hepatic Diseases
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                                                               Score 16;
Pred. No.
                                                  Mismatches
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                                                                                         Sequence 4, Application US/10394896
Publication No. US20030235591A1
GENERAL INFORMATION:
APPLICANT: Thoma, Hans
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Publication No. US20030235591A1
GENERAL INFORMATION:
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TELEPAX: (6112) 334-8994
INFORMATION FOR SEQ ID NO: 16
SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: EP 90124775
FILING DATE: December 19, 1990
APPLICATION NUMBER: PCT/EP91/02460
FILING DATE: December 19, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Thomas E. Popovich
NAME: Thomas E. Popovich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
                                  TITLE OF INVENTION: A Composition Used as a TITLE OF INVENTION: Therapeutic Agent Against Chronic Viral Hepatic Diseases NUMBER OF SEQUENCES: 40
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ADDRESSEE: Thomas E. Popovich, Thomas Popovich
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                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: Nucleic Acid
TYPE: Single
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CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
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ZIP: 55402-2111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Minneapolis
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 ADDRESSEE:
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                                                                                                                                                                                                                                                                          1 AAAGCCACCCAAGGCA 16
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80 South 8th Street
                                                                                       Thoma, Hans
                                                                                                                                                                                                                                                                                                             Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYSTEM: MS-DOS Version 5
Microsoft Word for Windows
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                                                                                                                                                                                                                                                                                                                                                                                                        Linear
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Thomas E. Popovich, Thomas Popovich
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                    ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        January 31, 1994
                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 16; DB 17; Length 390;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Thoma, Hans
TITLE OF INVENTION: Therapeutic
TITLE OF INVENTION: Therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (612) 334-8994
INFORMATION FOR SEQ ID NO:
                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB
MEDIUM TYPE: Storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 30099
REFERENCE/DOCKET NUMBER: 3757/MED1001US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: December 19, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Thomas E. Popovich
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PRIOR APPLICATION NUMBER: EP 90124775
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COMPUTER READABLE FORM:
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APPLICATION NUMBER: US/08/075,520A
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                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
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APPLICATION NUMBER: PCT/EP91/02460
FILING DATE: December 19, 1991
COMPUTER: IBM Compatible Compaq Prolinea 4/66
OPERATING SYSTEM: MS-DOS Version 5
SOFTWARE: Microsoft Word for Windows
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: Nucleic Acid
STRANDEDNESS: Single
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STATE: Minnesota
                                                                                                                                            STATE: Minnesota
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                                                                                                                                                                                                  ADDRESSEE: Thomas E. Popovich, ADDRESSEE: & Associates
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OPERATING SYSTEM:
                                                                                                         ZIP: 55402-2111
                                                                                                                           COUNTRY:
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                                                                                                                                                               Minneapolis
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                                                                                                                                                                                                                                                           40
                                                                                                                                                                                                                                                                   Composition Used as a
herapeutic Agent Against Chronic Viral Hepatic Diseases
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PRIOR APPLICATION DATA:

APPLICATION NUMBER: FILING DATE: MARCH CLASSIFICATION:

MARCH 21, 2003

US/10/394,896

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RESULT 26
US-10-478-633A-70/c
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TYPE: DNA
; ORGANISM: Hepatitis B virus
US-10-478-633A-69
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            Sequence 70, Application US/10478633A Publication No. US20050059000A1 GENERAL INFORMATION:
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SEQ ID NO 69
LENCON
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APPLICATION NUMBER: PCT/EP91/02460
APPLICATION NUMBER: PCT/EP91/02460
APPLICATION NUMBER: PCT/EP91/02460
APPLICATION NUMBER: PCT/EP91/02460
APPLICATION NUMBER: 9099
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 3079/MEDIOOUS
REFERENCE/DOCKET NUMBER: 3757/MEDIOOUS
TELECOMMUNICATION INFORMATION:
TELEPHONE: (612) 334-8991
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                   Query Match
Best Local (
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APPLICANT: TAKARA BIO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/478,633A CURRENT FILING DATE: 2003-11-25 PRIOR APPLICATION NUMBER: JP 2001-177737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: A stabilization method and a preservation method for a reagent TITLE OF INVENTION: acid amplification or detection reaction FILE REFERENCE: 663232
                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: JP 2001-249689 PRIOR FILING DATE: 2001-08-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE: 2001-06-12
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STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
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                                                                                                                                                       529
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                                                                                                                                                                                                                              h 100.0%; Score 16; DB 19; Length 560;
Similarity 100.0%; Pred. No. 6.5;
16; Conservative 0; Mismatches 0; Indels
                                                                                                                                                   AAAGCCACCCAAGGCA 514
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 55402-2111
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB
MEDIUM TYPE: Storage
COMPUTER: IBM Compatible Compaq Prolinea 4/4
OPERATING SYSTEM: MS-DOS Verni:
SOFTWARE: Micronff
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LENGTH: 560
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/478,633A CURRENT FILING DATE: 2003-11-25 PRIOR APPLICATION NUMBER: JP 2001-177737 PRIOR FILING DATE: 2001-06-12 PRIOR APPLICATION NUMBER: JP 2001-249689 PRIOR FILING DATE: 2001-08-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: A stabilization method and a preservation method for a reagent TITLE OF INVENTION: acid amplification or detection reaction FILE REFERENCE: 663232
                                                      NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Hepatitis B virus
                                                                                                                                                                                      CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: EP 90124775
FILING DATE: December 19, 1990
APPLICATION NUMBER: PCT/EP91/02460
FILING DATE: December 19, 1991
FILING DATE: December 19, 1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/075,520A
FILING DATE: January 31, 1994.
                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: MARCH 21,
                                      SEQUENCE CHARACTERISTICS:
                                                                                          NAME: Thomas E. Popovich
REGISTRATION NUMBER: 30099
REFERENCE/DOCKET NUMBER: 37
TELECOMMUNICATION INFORMATION:
TELEPHONE: (612) 334-8991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: A Composition Used TITLE OF INVENTION: Therapeutic Agent P
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                    ENGTH:
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Nucleic Acid
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No. US20030235591A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           80 South 8th Street
                  588 bp
                                                                            (612)
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                                                                        334-8994
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100.0%; Pred. No.
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                                                                                                                                    3757/MED1001US
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Against Chronic Viral Hepatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 19; Length 560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4/66
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APPLICANT: Paul PUMPENS
APPLICANT: Galina BORISOVA
ITITLE OF INVENTION: MODIFICATION OF HEPATITIS B CORE ANTIGEN
FILE REFERENCE: 117-432 / N78451B
CURRENT APPLICATION NUMBER: US/10/312,045
CURRENT FILING DATE: 2002-12-23
PRIOR APPLICATION NUMBER: PCT/GB01/02817
PRIOR APPLICATION NUMBER: FCT/GB01/02817
PRIOR FILING DATE: 2001-06-22
PRIOR FILING DATE: 2001-06-29
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin version 3.0
SEQ ID NO 1
TENGTH: 639
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US-10-394-896-35
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        SOFTWARE: MS |
SEQ ID NO 1
LENGTH: 639
                                                                                                                                                                                                                                                                                                      Sequence 1, Application US/10240917
Publication No. US20040223965A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 16; Conservative
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Best Local
                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                           APPLICANT: Robert GILBERT
APPLICANT: David STUART
APPLICANT: David STUART
APPLICANT: David ROWLANDS
TITLE OF INVENTION: HEPATITIS B CORE ANTIGEN FUSION PROTEINS
FILE REPERENCE: 117-419 / N79405B
CURRENT PPLICATION NUMBER: US/10/240,917
CURRENT FILING DATE: 2003-02-04
PRIOR APPLICATION NUMBER: PCT/GB01/01607
PRIOR PPLICATION NUMBER: EP 00107118.2
PRIOR PILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-04-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Mark PAGE APPLICANT: Jing-Li I
                                                                                                                                                                                                                                                      APPLICANT: Annick GEHIN APPLICANT: Robert GILBI
                                                                  NUMBER OF SEQ ID NOS: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(639)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Hepatitis B virus
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25
                                                                                                                                                                                                                                                                                                                                                                                                                 82
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                                                MS Word
                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGCCACCCAAGGCA
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Paul PUMPENS
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Pred. No. 6.4;
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Pred. No.
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SEQUENCE DESCRIPTION: SEQ ID NO: 56: US-09-912-679-56
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US-09-912-679-56/c
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Patent No. US20020141974A1
GENERAL INFORMATION:
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Best Local Similarity
                                                              Matches
                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                          TELEX: 3723836
INFORMATION FOR SEQ ID NO: 56:
SEQUENCE CHARACTERISTICS:
LENGTH: 655 base pairs
TYPE: nucleic acid
STRANDENESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY; CDS
LOCATION: (1)..(639)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Hepatitis B virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READNALE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/912,679
FILING DATE: 07-Jun-1995
CLASSIFICATION: <UNKnown>
                                                                               Local
                                                                                                                                                                                                                                                                                             NAME: McMasters, David D.
REGISTRATION NUMBER: 33,963
REFERENCE/DOCKET NUMBER: 930049.407C5
TELECOMMUNICATION IMFORMATION:
TELEPHONE: 206-622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Jolly, Douglas J.
Chang, Stephen M.W
Lee, William T.L.
                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: HEPATITIS THERAPEUTICS NUMBER OF SEQUENCES: 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
92
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                                                               16;
                               1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AAAGCCACCCAAGGCA 16
                                                                             h 100.0%; Score 16; DB 9;
Similarity 100.0%; Pred. No. 6.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                TELEFAX: 206-682-6031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Seed and Berry
STREET: 6300 Columbia Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Townsend, Kay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 16; 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Joanne
   77
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                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                              Length 655;
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RESULT 31 US-09-466-035-56/c ; Sequence 56, Application US/09466035 ; Patent No. US20020165172A1

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                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 32
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                                                                                                                                                                                                                                                                                                                                                                 S-09-821-662-23/c
Sequence 23, Application US/09821662
Publication No. US20040063652A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 56:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
LENGTH: 655 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: SALLBERG, MATTI
MILICH, DAVID R.
COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS -DOS

SOFTWARE: Patent In Release #1.0. Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/821,662

FILING DATE: 29-Mar-2001
                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/09/466,035
FILING DATE: 17-Dec-1999
                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: COMBINATION
                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Pasternak, Dahna S.
REGISTRATION NUMBER: 41,411
REFERENCE/DOCKET NUMBER: 2300-1231.01
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Robins & Pasternak LLP
STREET: 545 Middlefield Road, Suite 180
CITY: Menlo Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICAMAL MILICH, DAVID K.

MILICH, DAVID K.

LEE, WILLIAM T.L.

TITLE OF INVENTION: COMPOSITIONS AND METHODS

INTRACELLULAR DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92 AAAGCCACCCAAGGCA 77
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                                                                                                                                                                                           STATE: Washington
                                                                                                                                                                         COUNTRY: USA
                                                                                                                                                                                                                    CITY: Seattle
                                                                                                                                                                                                                                STREET: 6300 Columbia Center,
                                                                                                                                                                                                                                                         ADDRESSEE: SEED and BERRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 650-325-7812
TELEFAX: 650-325-7823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; !
.larity 100.0%; !
Conservative 0;
                                                                                                                                                           98104-7092
                                                                                                                                                                                                                                                                                                                                                   Jolly, Douglas J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 16; DB 9; Length 655; Pred. No. 6.3;
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                                                                                                                                                                                                                                                                                                            GENE DELIVERY VEHICLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   56:
                                                                                                                                                                                                                                701 Fifth Avenue
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RESULT 34
US-10-461-790-97/c
US-10-461-790-97/c
; Sequence 97, Application US/10461790
; Publication No. US20040029111A1
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                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 3305
LENGTH: 1841
                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3305, Application US/10398221 Publication No. US20040018514A1
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: KUNST, Frederik
APPLICANT: GLASER, Philippe
TITLE OF INVENTION: Listeria innocua, genome and applications
FILE REFERENCE: 344 702 - US (2/0/398,221)
CURRENT FILING DATE: 2003-03-27
PRIOR APPLICATION NUMBER: US/10/398,221
CURRENT FILING DATE: 2001-10-04
PRIOR APPLICATION NUMBER: PCT/FR 01/03 061
PRIOR PILING DATE: 2001-10-04
PRIOR PILING DATE: 2000-10-04
NUMBER OF SEQ ID NOS: 4025
COUNTRY OF SEQ ID NOS: 4025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)..(end)
                                                                                                                                                                                                                                                                     OTHER INFORMATION: n can be any nucleotide: a,g,c
                                                                                                                                                                                                                                                                                                                                         ORGANISM: Listeria monocytogenes
                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 3723836 SEEDANDBERRY INFORMATION FOR SEQ ID NO: 23: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
MOLECULE TYPE: CDNA
HYPOTHETICAL: NO
FRAGMENT TYPE: N-terminal
SEQUENCE DESCRIPTION: SEQ ID NO: 23:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: King, Joshua
REGISTRATION NUMBER: 35.570
REFERENCE/DOCKET NUMBER: 930049.428
TELECOMMUNICATION INFORMATION:
                                                                                                                        105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                         16;
                                                                                                                                                     1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92 AAAGCCACCCAAGGCA 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                      AAAGCCACCCAAGGCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 655 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (206) 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: <Unknown>
                                                                                                                                                                                     100.0%; Score 16; DB llarity 100.0%; Pred. No. 5.6; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; ilarity 100.0%; Conservative 0;
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Pred. No.
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                                                                                                                                                                                                                      DB 17;
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                                                                                                                                                                                                                    Length 1841;
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APPLICANT: Linnen,

Linnen, Jeffery M. Kolk, Daniel P.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Hepatitis B Virus
US-10-461-790-97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-453-792-301/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 301, Applicat Publication No. US2004 GENERAL INFORMATION:
NAME: SADOFF, B.J.

REGISTRATION NUMBER: 36,663
REFERENCE/DOCKET NUMBER: 2551
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 816-4000
TELEPAX: (703) 816-4100
INFORMATION FOR SEQ ID NO: 301:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: F
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APPLICANT: Stringfellow, Leslie A.
TITLE OF INVENTION: Compositions and Methods for Detecting
TITLE OF INVENTION: Hepatitis B Virus
FILE REFERENCE: GP134-02.UT
CURRENT APPLICATION NUMBER: US/10/461,790
CURRENT FILING DATE: 2003-06-13
PRIOR APPLICATION NUMBER: 60/389,393
PRIOR APPLICATION NUMBER: 60/389,393
PRIOR FILING DATE: 2002-06-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 142
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                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/155,885A
PILING DATE: 08-Oct-1998
APPLICATION NUMBER: PCT/EP97/02002
                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1883 AAAGCCACCCAAGGCA 1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: STUYVER, LIEVEN
ROSSAU, RUDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGCCACCCAAGGCA 16
                                                                                                                                                                                             FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/10/453,792 FILING DATE: 04-Jun-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: U.S.A. ZIP: 22201-4714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: NIXON & VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yoshimura, Tadashi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Getman, Damon K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dockter, Janel M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10453792
b. US20040029110A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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Pred. No. 5
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                                                                                                             2551-5
                                                                                                                                                                                                                                                                                                                                                                                                                                     Version #1.30 (EPO)
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US-10-104-966-14/c
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                                                                                                                                                                                                                                         GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. US2002013
GENERAL INFORMATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
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             PRIOR APPLICATION NUMBER: 09/705,547
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: 60/229,175
PRIOR FILING DATE: 2000-08-29
NUMBER OF SEQ ID NOS: 15
                                                                                                                                               APPLICANT: Catharina Hultgren
TITLE OF INVENTION: VACCINES CONTAINING RIBAVIRIN AND
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: TRIPEP.23AUSC1
                                                                                                                                                                                                        APPLICANT: Matti Sallberg APPLICANT: Catharina Hul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: 60/229,175
PRIOR FILING DATE: 2000-08-29
PRIOR APPLICATION NUMBER: 60/225,767
PRIOR FILING DATE: 2000-08-17
                                                                                                      CURRENT APPLICATION NUMBER: US/10/104,966
CURRENT FILING DATE: 2002-03-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: TRIPBE 23AUS2
CURRENT APPLICATION NUMBER: US/09/929,955
CURRENT FILING DATE: 2001-08-15
PRIOR APPLICATION NUMBER: 09/705,547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Catharina Hultgren
TITLE OF INVENTION: VACCINES CONTAINING RIBAVIRIN AND
TITLE OF INVENTION: METHODS OF USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Matti Sallberg APPLICANT: Catharina Hul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE: OTHER INFORMATION: Hepatitis B virus sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ocal Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1876 AAAGCCACCCAAGGCA 1861
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ ID NO: 301:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
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FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 16;
Pred. No.
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US-10-453-792-302/c
; Sequence 302, Application US/10453792
; Publication No. US20040029110A1
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                                         Matches
                                                       Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 302: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      blication no. GENERAL INFORMATION:
GENERAL INFORMATION:
STUTYER, LIEVEN
ROSSAU, RUDI
ROSSAU, RUDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: DNA (genomic) HYPOTHETICAL: NO ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                          NAME: SADOFF, B.J.

REGISTRATION NUMBER: 36,663

REFERENCE/DOCKET NUMBER: 2551-5

TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 816-4000

TELEPHONE: (703) 816-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/155,885A
FILING DATE: 08-Oct-1998
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/10/453,792
FILING DATE: 04-Jun-2003
CLASSIFICATION: «Unknown»
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1897 AAAGCCACCCAAGGCA 1882
1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16;
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                                                                                                                                                                                                                               TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                      LENGTH: 3182 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: ARLINGTON
STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                  ELEFAX: (703)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                       100.0%; Score 16; DB 17; Length 3182; 100.0%; Pred. No. 5.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 16; DI
100.0%; Pred. No. 5.;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                    816-4100
                                    0,
                                    Mismatches
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                                  Indels
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                              Gaps
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RESULT 40
US-10-453-792-304/c
US-10-453-792-304/c
; Sequence 304, Application US/10453792
; Publication No. US20040029110A1
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                  ; SEQUENCE DESCRIPTION: SEQ ID NO: US-10-453-792-303
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US-10-453-792-303/c
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                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                            Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 303: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/155,885A FILING DATE: 08-Oct-1998
APPLICATION NUMBER: PCT/EP97/02002
FILING DATE: 21-APR-1997
APPLICATION NUMBER: EP 96870053.4
FILING DATE: 19-APR-1996
ATTORNEY/ACENT INFORMATION:
NAME: SADOFF, B.J.
REGISTRATION NUMBER: 36,663
APPLICANT: STUYVER, LIEVEN
ROSSAU, RUDI
                                                                                                                                                                         1897 ANAGCCACCCAAGGCA 1882
                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPAX: (703) 816-4100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/10/453,792
FILING DATE: 04-Jun-2003
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                         ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAERTENS, GEERT
TITLE OF INVENTION: METHOD FOR TYPING AND DETECTING HBV
NUMBER OF SEQUENCES: 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1897 AAAGCCACCCAAGGCA 1882
                                                                                                                                                                                                            1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                         16;
                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 3182 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30 (EPO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 22201-4714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: NIXON & VANDERHYE P.C. STREET: 1100 NORTH GLEBE ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: ARLINGTON
                                                                                                                                                                                                                                                     100.0%; Score 16; DB llarity 100.0%; Pred. No. 5.2; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/10453792
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                                                                                                                                                                                                                                                                                                                                                     303:
                                                                                                                                                                                                                                                                                       DB 17;
                                                                                                                                                                                                                                                                                       Length 3182;
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                                                                                                                                                                                                                                                 Gaps
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; TOPOLOGY: linear; MOLECULE TYPE: DNA (genomic); HYPOTHETICAL: NO ANTI-SENSE: NO SEQUENCE DESCRIPTION: SEQ ID NO: 304: US-10-453-792-304
Search completed: March 31, 2005, 14:14:42 Job time: 298 secs
                                                   Query Match
Best Local Similarity
Matches 16; Conserv
                          1897 AAAGCCACCCAAGGCA 1882
                                       1 AAAGCCACCCAAGGCA 16
                                                   100.0%; Score 16; DB 17; Length 3182; ilarity 100.0%; Pred. No. 5.2; Conservative 0; Mismatches 0; Indels 0
                                                     0
                                                     Gaps
                                                    0;
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밁 Ś Inis rage Blank (uspto)

0 700 1 AV359761 AV359761 0 770 6 CD778593 CD778593 0 895 4 BI250824 EL250824 0 975 6 CA474404 CA474400 987 7 W34362 CG754255 0 1684 9 CG754259 AK009491 0 2005 3 AK078669 AK009491 0 2368 3 AK078669 BB198017 BB198017 8 286 2 BB198017 BF924007 8 287 2 BB090939 BB09093 8 287 2 BB309456 BB309456 8 294 7 W40391 BB309453 8 294 4 BI036238 BB103623	16 100.0 384 2 BF327943 16 100.0 396 4 BI099449 16 100.0 441 9 CE3279035 16 100.0 464 1 AA103554 16 100.0 496 2 BE3144757 16 100.0 496 7 CF755881 16 100.0 623 5 BQ385327 16 100.0 623 6 CA192813 16 100.0 656 6 CA192813 16 100.0 656 6 CA19348	is the number of results predicted by char eater than or equal to the score of the result by analysis of the total score distributed by analysis of the total score distributed by analysis of the total score distributed by analysis of the score of the result of the score of the result of the score of the result of the score of the	Post-processing: Listing first 1000 summaries Database: EST:* 1: gb_est1:* 2: gb_est2:* 3: gb_htc:* 4: gb_est3:* 5: gb_est4:* 6: gb_est5:* 7: gb_est5:* 8: gb_gss2:*	isfying chos	Scoring table: OLIGO_NUC Gapop 60.0, Gapext 60.0 Searched: 34239544 seqs, 19032134700 residues Word size: 0		, using sw model 005, 14:05:43 ; Search time (without al 390.904 Mil	GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.
	C C C 776 778 81 0 8 8 2 1 0 8 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	65 66 66 69 69 69 71 71 73	00 00 0 55 55 55 55 55 55 55 55 55 55 55 55 55		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C 35 38 39		c 25
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CA191351 SCCCRTZCO CA191363 SCBERT105 CA817866 CA12E1301 CA132259 SCBGRT105 CL601784 OB BA007 CD718015 VVEI45E02 CA190702 SCCCRT1CO CA815948 CA12E1301 CE214848 Ligr-gss-CR046007 Reverse CR046007 Reverse CB0339361 CA23E1031 BB191088 BB191088 CL574012 OB BA002 CV036218 RTNACL1_5	CA293504 SCSGLV100 CD718076 VVB146B09 CD719040 VVB156H05 BU730169 UI-E-CK1- CA145658 SCSGRT206 CA902087 PCSC15106 CE333955 tigr-ggs- BB619841 BB619841 BJ263735 BJ263735 AG134513 PAR LTOG1	BE56666 601339617 BJ258115 BJ258115 AZ438519 1M0228169 CD733924 4046868 1 CF512619 CAbud0003 CE304273 tigr-gss-CF476778 RTWM3 3 CC1412826 RPC144 43 BG436842 602488830	BM669271 UI-E-DW1- BM717229 UI-E-DW1- CL184460 104 397 1 BM693039 UI-E-CKI- BJ676120 BJ676120 AA131157 zo16e05.x AA121607 zn78c02.x CE357759 tigr-gss- BB187673 BB187673 CA902088 PCSC18183 CF669528 RTCNT1 44 BQ198426 NXLV130 G CE041883 tigr-gss-	CE258762 F197-988- CE603007 F197-988- E6691107 340141 BA CA394047 C846608.9 AZ835303 ZM0129P23 CA193115 SCRLAD104	BZ180217 CH230-485 CF477353 RTWW3 7 B CE812092 tigr-gs6- CA902086 PCSC10343 BG982671 IL5-CN006 CE514588 tigr-gs8-	BQ198462 NXLV131 E AA147417 zo39e07:r CN125873 RHOH1 13 CA902085 PCS04956 AA205003 zq72e12:r	BF935524 IL2-NT020 CV001930 CB802-2ms CB691996 AMCNUC:S CE698527 tigr-gss- CE047936 tigr-gss- CE047936 tigr-gss- BI536031 390188 MA	BB251202 BB251202 AI812549 12G1 Pine AW921312 EST352616

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.095366: .095366: .095366: .095366: .095366: .095366: .095366: .095366: .095366: .095366: .095366: .0953	338685 338685 394314 393383 367841 .06370 .06370 .06370 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 .05452 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Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H.,
Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V.,
O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
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                                                                                                                                                                                                      Proc. Natl. Acad. Sci. U.S.A.
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                                                                                                                         +55-11-2704922
                                                                                                                                                                                                                                                                                                                                          sapiens (human)
/organism="Homo sapiens"
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BB307690
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2 BN0148 Homo sapiens cDNA, mRNA sequence.
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Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R.,
Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F.,
Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H.,
Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V.,
O'Hare,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
Simpson,A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16 AAAGCCACCCAAGGCA 31
                                                                                                                                                                                                                                                                                                                                                                Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=CM2&t2=CM2-GN0295-
020101-655-a07&t3=2001-01-02&t4=1)
Seq primer: puc 18 forward
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
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CM2-GN0295-020101-655-a07
BI049449
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: +55-11-2704922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rua Prof. Antonio Prudente 109, 4 andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shotgun sequencing of the human transcriptome with ORF expressed
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/organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone lib="GN0295"
/clone lib="GN0295"
/clone lib="GN0295"
/note="Organ: placenta_normal; Vector: pucl8; Site_1:
/mote="Organ: placenta_normal; Vector: pucl8; Site_1:
/mote="Organ: placenta_normal; Vector: patent gproducts derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_lib="BN0148"
/note="Organ: breast normal; Vector: puc18; Site_1: Smal;
/note="Organ: breast normal; Vector: puc18; Site_1: Smal;
Site_2: Smal; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
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/db_xref="taxon:9606"
/dev_stage="Adult"
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AA103554

MC24H10.r1 Life Tech mouse embryo 13 5dpc 10666014 Mus cDNA clone IMAGE:554563 5', mRNA sequence.

AA103554

AA103554.1 GI:1649714

EST.

Mus musculus (house mouse)

Mus musculus (house mouse)
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1 (bases 1 to 441)

Kirkness,E.F., Bafna,V., Halpern,A.L., Levy,S., Remington,K., Kirkness,E.F., Bafna,V., Pop,M., Wang,W., Fraser,C.M. and Wosth,D.B., Delcher,A.L., Pop,M., Wang,W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Canis familiaris (dog)
Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           genomic survey sequence. CE327035
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Department of Eukaryotic Rockville, MD 20850, USA
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GSS.
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               Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tel: 301-838-0200
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The Institute for Genomic Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The dog genome: survey sequencing and comparative analysis Science 301 (5641), 1898-1903 (2003)
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 (bases 1 to 464)
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                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="genomic DNA"
|strain="Standard Poodle"
|/db_xref="taxon:9615"
|/clone_lib="Dog Library"
|/note="Site_1: BstXI; Libraries were prepared peripheral blood"
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100.0%; Pred. No. 1.2e+02;
100.0%; Or Mismatches 0;
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                 Chordata;
Rodentia;
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                 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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ches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9712 Medical Center Drive,
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                                                                                                                                                                      Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 496)

Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vector to vector length is 510 Seq primer: -28M13 rev1 from Ar Location/Qualifiers
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Washington University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. L
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                 Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar,
                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16;
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                                                                                                                                                                                                                                                                                                                                                                                                                     CM0-HT0180-041099-065-c06
BE144757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Marra M/Mouse EST Project
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                                                                                                                            Proc. Natl.
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Fax: 314 286 1810
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                                                                                                                                            sequence tags
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/note="Organ: whole embryo; Vector: PCMV-SPORT2; Site
SalI, Site 2: NotI; Cloned unidirectionally. Primer:
Oligo dT. 13.5dpc embryos. pCMV-SPORT2 vector."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="embryo"
/dev_stage="13.5dpc embryos"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:10090"
/clone="IMAGE:554563"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Mus musculus"
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J. 1.2e+02;
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mRNA sequence EST 21-JUN-2000

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CF755881
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                                                                                                                               Library constructed at Texas Tech University by Deshui Zhang and Jianhang Jia in the laboratory of Dr. Henry Nguyen. Sequencing was done in the Laboratory for Genomics and Bioinformatics, University of Georgia. Sequence ends have been trimmed to exclude vector and regions below Phred quality 16. Three-prime sequences are presented as their reverse complement and have been trimmed to exclude polyA. Seq primer: JENREY (CAGGAAACAGCTATGACC).
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This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=CM0-HT0180-041
099-065-c06&t3=1999-10-04&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 496.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                      Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USAF1 2 A12.b1 A011 Drought-stressed after flowering Sorghum bicolor CDNA clone DSAF1 2 A12 A011 5', mRNA sequence.

CF7558A1
                                                                                                                                                                                                                                                                                                                            Email: mmpratt@uga.edu
                                                                                                                                                                                                                                                                                                                                                         Tel: 706 542 1860
Fax: 706 583 0210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Cordonnier-Pratt MM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   stressed leaf
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pratt
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Sorghum.

1 (bases 1 to 587)
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EST.
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Similarity 100.0%;
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/mol type="mRNA"
/mol type="mRNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="HT0180"
/note="Organ: head_neck; Vector: puc18; Site_1: SmaI;
/note="Organ: head_neck; Vector: puc18; Site_1: SmaI;
/site_2: SmaI; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
/mol_type="mRNA"
/cultivar="B35"
                                                     organism="Sorghum bicolor"
                                                                                                        ocation/Qualifiers
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Pred. No. 1.2e+02;
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Seq primer: M13RP1 reverse primer
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA Sequencing by: National Institutes of Health Intramural Sequencing Center (NISC) Clone distribution: NCI-CGAP clone distribution information can found through the I.M.A.G.B. Consortium/LLNL at: info@image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 AAAGCCACCCAAGGCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NIH-XCG http://image.llnl.gov/image/html/xenopuslib_info.shtml.
National Institute of Child Health and Human Development, National
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA Library Preparation:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cancer Insitute, X Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopus laevis
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1 (bases 1 to 623)
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                                                           Similarity
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mn11f10.y1 NICHD_XGC_Ov1 Xenopus
E:5073186 5', mRNA sequence.
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                                        Conservative
                                                                                                                                      /clone_lib="NICHD_XGC_Ov1"
/note="Organ: ovary; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT. Average insert size 2.0 kb. Constructed by Life Technologies."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /dev_stage="Post-flowering"
/lab host="plectroMax DH10B (BRL)"
/clone lib="Drought-stressed after flowering"
/clone lib="Drought-stressed after flowering"
/note="Organ: Leaf; Vector: pBlueScriptSK-; Site 1: XhoI;
Site 2: EcoRI; The library was prepared from polyA+ RNA
from leaves harvested from post-flowering.
drought-stressed Sorghum bicolor, cv. B35. Double-stranded
cDNA was cloned unidirectionally using the UniZap system
from Stratagene. After amplification, the library was
subtracted by re-association hybridization. Inserts can be
excised with XhoI and EcoRI."
                                                                                                                                                                                                                                               /sex="female"
/lab_host="DH10B (phage-resistant)"
                                                                                                                                                                                                                                                                                      /organism="Xenopus laevis"
/mol_type="mRNA"
/db_xref="taxon:8355"
/clone="IMAGE:5073186"
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National Institutes of Health Intram
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                                                           Score 16;
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Pred. No.
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thes 0;
                                                           1.2e+02;
                                                                                 DB 5;
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                                                                             Length 623;
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BB545848/c
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                                                                                                                                                                                                                                                                  63
                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                BB545848 RIKEN full-length enriched, 0 day neonate musculus cDNA clone E130306004 3', mRNA sequence
                                                                                                                                                                                                                                                                                                     1 AAAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: parruda@unicamp.br
Clone distribution: clone distribution information can be found
through the Brazilian Clone Collection Center (BCCC) at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Centro de Biologia Molecular e Engenharia Genetica
Universidade Estadual de Campinas
Caixa Postal 6010, 13083-970, Campinas SP, Brazil
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SCRLSB1042G03.g SB1 Saccharum
                   Mus musculus (house mouse)
Mus musculus
                                                             ISE
                                                                              BB545848
BB545848.2 GI:16447378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Plate: 042 row: G column: 03
Seq primer: T7 Promoter Primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          http://www.bcccenter.fcav.unesp.br
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Arruda P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The libraries that made SUCEST Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vettore, A.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Saccharum; Saccharum officinarum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Saccharum officinarum
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complex.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                  AAAGCCACCCAAGGCA 78
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55 19 3788 1089
                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           plants]. cDNA was prepared from polyA+ mRNA using SuperScript Plasmid System Kit (Invitrogen). The double-strand cDNAs were fractionated in a sepharose CL-2B 40cm-columns and fragments sizing between 0.8 and 1.5 Kb were directionally cloned into the vector. Details of each source of RNA and library construction can be obtained at http://sucest.lad.ic.unicamp.br/public"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Organ: Stalk Bark from adult plants; Vector: pSport1; Site_1: Sall; Site_2: NotI; An unidirectional cDNA library generated from [Stalk Bark from adult
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Saccharum officinarum"
|mol_type="mRNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lib="SB1"
                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                               Score 16; DB 6; 1
Pred. No. 1.2e+02;
                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                    mRNA LILL...d, 0 day neonate
                                                                                                                                                                                                                                                                                                                                                                                  Length 646;
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eyeball Mus
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R 1 (bases 1 to 659)

R Arakawa, T., Carninci, P., Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hiramoto, K., Hori, F., Ishii, Y., Ito, M., Kawai, J., Konno, H., Kouda, M., Koya, S., Matsuyama, T., Miyazaki, A., Nomura, K., Ohno, M., Okazaki, Y., Okido, T., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Takeda, Y., Tanaka, T., Toya, T., Muramatsu, M. and Hayashizaki, Y. RIKEN Mouse ESTS (Arakawa, T., et al. 2001)

L Unpublished (2001)

On Jul 31, 2000 this sequence version replaced gi:9617276.
Contact: Yoshihde Hayashizaki
Lahoratery for Genome Evrolvation Decearch Group Diven Genome's
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Sugahara, Y. and Hayashizaki, Y.

Computer based methods for the mouse full-length cDNA construction of a encyclopedia: real-time sequence clustering for construction of concedundant cDNA library. Genome Res. 11 (2), 281-289 (2001) Kondo, S., Shinagawa, A., Saito, T., Kiyosawa, H., Yamanaka, I., Alzawa, K., Fukuda, S., Hara, A., Itoh, M., Kawai, J., Shibata, K. and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prepare mouse tissues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA library was prepared and sequenced in Mouse Genome
Encyclopedia Project of Genome Exploration Research Group in Riken
Genomic Sciences Center and Genome Science Laboratory in RIKEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)
Please visit our web site (http://genome.gsc.riken.go.jp/) for further details.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hayashizaki,Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1-7-22 Suehiro-cho,
Tel: 81-45-503-9222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81-45-503-9216
                                                                                                             prepared and sequenced in Mouse Genome Encyclopedia
Project of Genome Exploration Research Group in Riken
Genomic Sciences Center and Genome Science Laboratory in
RIKEN, Division of Experimental Animal Research in Riken
                                    cap-trapper. Second strand cDNA was prepared with primer adapter of sequence (5'
                                                                                                                                                                                                                                  contributed to prepare m
primed with a primer [5'
/clone_lib="RIKEN full-length enriched, 0 day neonate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="eyeball"
/dev_stage="0 day neonate"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note="Site_1: SalI; Site_2: BamHI; cDNA library was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone="E130306004
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AUTHORS
TITLE
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Best Local S
Matches 16
                                                                                             Query Match
Best Local
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 471
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                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               http://www.bcccenter.fcav.unesp.br
Plate: 013 row: G column: 09
Seq primer: T7 Promoter Primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: parruda@unicamp.br
Clone distribution: clone distribution information can be found through the Brazilian Clone Collection Center (BCCC) at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Centro de Biologia Molecular e Engenharia Genetica
Universidade Estadual de Campinas
Caixa Postal 6010, 13083-970, Campinas SP, Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genet. Mol. Biol.
Contact: Arruda P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vettore,A.L., da Silva,F.R., Kemper,E.L.
The libraries that made SUCEST
Genet. Mol. Biol. 24 (1-4), 1-7 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Saccharum officinarum
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD
clade; Panicoideae; Andropogoneae; Saccharum; Saccharum officinarum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tel: 55 19 3788 1137
Fax: 55 19 3788 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CA083440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCEPAM2013G09.g AM2 Saccharum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Saccharum officinarum
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AAAGCCACCCAAGGCA 486
                                   AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 666)
                                                                         Conservative
                                                                                                                                                      /note="Organ: Apical meristem and tissues surrounding of immature plants; Vector: pSport1; Site 1: Sal1; Site 2: Not1; An unidirectional cDNA library generated from [Apical meristem and tissues surrounding of immature plants]. cDNA was prepared from polyA+ mRNA using SuperScript Plasmid System Kit (Invitrogen). The double-strand cDNAs were fractionated in a sepharose CL-2B 40cm-columns and fragments sizing between 0.8 and 1.5 Kb were directionally cloned into the vector. Details of each source of RNA and library construction can be obtained at http://sucest.lad.ic.unicamp.br/public"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="mRNA"
/db_xref="taxon:4547"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        was cleaved with BamHI and XhoI. Vector: a modified pBluescript KS(+) after bulk excision from Lambda FLC
                                                                                                                                                                                                                                                                                                                                                                                              /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Saccharum officinarum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                clone="SCEPAM2013G09"
                                                                                         100.0%;
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                                                                   Score 16; DB o; Pred. No. 1.2e+02;
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                                                                                                       Length 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 659;
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                                                                       Indels
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                                                                   Gaps
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ORGANISM
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AV359761/c
LOCUS
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VERSION
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                                                                                                                                                                                                                                                                                             further details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 81-45-503-9222
Fax: 81-45-503-9216
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                                                                                                                                                                                                    mouse
                                             'sex="male"
                                                                                                                                                                                                    tissues
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RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer. Genome Res 10 (11), 1757-1771 (2000)

Konno,H., Fukunishi,Y., Shibata,K., Itoh,M., Carninci,P., Sugahara,Y. and Hayashizaki,Y.

Computer-based methods for the mouse full-length cDNA encyclopedia: real-time sequence clustering for construction of a nonredundant cDNA library. Genome Res. 11 (2), 281-289 (2001)

Kondo,S., Shinagawa,A., Saito,T., Kiyosawa,H., Yamanaka,I., Alzawa,K., Fukuda,S., Hara,A., Itoh,M., Kawai,J., Shibata,K. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes. Genome Res. 10 (10), 1617-1630 (2000) wagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Watabuura,S., Kawai,J., Okazaki,Y., Muramatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y.
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Hara,A., Hiramoto,K., Hori,F., Ishii,Y., Ito,M., Kawai,J.,
Konno,H., Kouda,M., Koya,S., Mateuyama,T., Miyazaki,A., Nomura,K.,
Ohno,M., Okazaki,Y., Okido,T., Saito,R., Sakai,C., Sakai,K.,
Sano,H., Sasaki,D., Shibata,K., Shinagawa,A., Shiraki,T.,
Sogabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F.,
Takeda,Y., Tanaka,T., Toya,T., Muramatsu,M. and Hayashizaki,Y.
RIKEN Mouse ESTs (Arakawa,T., et al. 2001)
On Nov 13, 199 this sequence version replaced gi:6406899.
Contact: Yoshihide Hayashizaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN.

Division of Experimental Animal Research in Riken contributed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hayashizaki,Y.

Computational Analysis of Full-Length Mouse cDNAs Compared with Human Genome Sequences Mamm. Genome. 12, 673-677 (2001)

Human Genome Sequences Mamm. //qenome.qsc.riken.go.jp/) for
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Jaj
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AV359761 TIKEN full-length enriched, adult male emusculus cDNA clone 7530401G06 3', mRNA sequence
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 700)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: genome_res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (house mouse)
/clone lib="RIKEN full-length enriched, adult male eyebal\Gamma"
                                                                    /tissue_type="eyeball"
/dev_stage="adult"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                         /strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                      db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                        mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                          organism="Mus musculus"
                                                                                                                                                                                                                                                    clone="7530401G06"
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end, mRNA sequence.
CD778583
CD778583.1 GI:49534
EST.
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                                                                                                                                                                                                                                                                                                           Email: nene@tigr.org
Seq primer: mixed oligo dT.
                                                                                                                                                                                                                                                                                                                                                                                     9712 Medical Center Drive,
                                                                                                                                                                                                                                                                                                                                                                                                        The Institute for
                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Vishvanath Nene
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rhipicephalus appendiculatus 
Unpublished (2003) 
Other_ESTs: EST649945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Bishop,R.
An index of genes transcribed in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rhipicephalus appendiculatus
Eukaryota; Metazoa; Arthropoda; Chelicerata; Arachnida; Acari;
Parasitiformes; Ixodida; Ixodoidea; Ixodidae; Rhipicephalus.
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EST649944 RAA Rhipicephalus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 770)
                                                                                                                                                                                                                                                                                                                                                                                                    Institute for Genomic Research
                                                                                                                                                                                                                                                                                                                                                 301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   V., Lee,Y., Skilton,R., Mwaura,S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Site 1: Sall; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
cDNA library was custom prepared by Invitrogen Corporation. Briefly, first strand cDNA was primed using oligo(dT) containing a NotI site. Size fractionated double
                                                 /note="Organ: Salivary glands; Vector: pCMVSport6.0.ccdb; Salivary glands were dissected on day four after initiation of feeding. Total RNA was prepared using acid guanidium thiocyanate-phenol-chloroform extraction. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               primed with a primer [5'
GAGAGAGAGAGAGCTCTTTTTTTTTTTTTTTTVN 3'],
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                                                                                                                       /dev_stage="Adult"
/lab_host="E. coli strain DH10B-TonA"
/clone_lib="RAA"
                                                                                                                                                                                                                /mol_type="mRNA"
/strain="Muguga"
                                                                                                                                                                              /db_xref="taxon:34631"
/clone="RAAA309"
                                                                                                                                                                                                                                                        organism="Rhipicephalus
                                                                                                                                                                                                                                                                                        ocation/Qualifiers
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Pred. No. 1.2e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Quackenbush, J., Gardner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 700;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear EST 01-JUL-2004 cDNA clone RAAA309 3'
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AUTHORS
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REFERENCE AUTHORS

TITLE

SOURCE KEYWORDS VERSION ACCESSION DEFINITION

ORGANISM

COMMENT

JOURNAL

FEATURES

CA474404 975 bp mRNA linear EST AGENCOURT_10667749 NCI_CGAP_ZKidl Danio rerio cDNA clone

EST 12-NOV-2002

RESULT 12 CD778583/c

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ORIGIN

Matches Query Match Best Local

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Query Match
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                                      16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Robin Humphre
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     found through the I.M.A.G.E. Consortium/LLNL http://image.llnl.gov Plate: LLAM11368 row: p column: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 895)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health,
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Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             602993448F1 NCI_CGAP_Mam5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                          Similarity
AAAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                           quality sequence start: 4 quality sequence stop: 741. Location/Qualifiers
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                                      Conservative
                                                                                                                                  /clone lib="NCI CGAP Mam5"
/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: Sall;
Site 2: NotI; Cloned unidirectionally. Primer: Oligo dT.
Library constructed by Life Technologies. Investigators
providing samples: Lothar Hennighausen/Robin Humphreys,
NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            stranded cDNA was ligated to EcoRV-NotI cleaved vector electroporated into E.coli. Library RAA was made from
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                                                                                                                                                                                                                                                /tissue_type="tumor, gross tissue"
/dev_stage="7 months"
/lab_host="DHIOB"
                                                                                                                                                                                                                                                                                                                                                                                                               1. .895
                                                                                                                                                                                                                                                                                                           clone="IMAGE:5149306"
                                                                                                                                                                                                                                                                                                                                                   strain="mix FVB/N, C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                       organism="Mus musculus"
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                                    Score 16; DB 4; I
Pred. No. 1.2e+02;
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s musculus
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                                                                            Length 895;
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                                                                                             Mus musculus (house mouse)
Mus musculus
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 987)
Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T., Geisel, S., Kucaba, T., Lacy, M., Le, M., Martin, J., Morris, M., Schellenberg, K., Steptoe, M., Tan, F., Underwood, K., Moore, B., Theising, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and Waterston, R.
                                                                                                                                                                                                                                                                                                                                                                                          W34362

987 bp mRNA linear EST 11-SEP-1996
ma99b12.rl Soares mouse p3NMF19.5 Mus musculus cDNA clone
IMAGE: 318815 5' similar to SW:KELC_DROME Q04652 RING CANAL PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
                                  The WashU-HHMI Mouse EST Project
Unpublished (1996)
Contact: Marra M/Mouse EST Project
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Leonard I. Zon, M.D.
CDNA Library Preparation: Invitrogen Corp
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
WashU-HHMI Mouse EST Project Washington University School
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High quality sequence stop: 314.
Location/Qualifiers
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Contact: Robert Strausberg, Ph.D.
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NIH-MCC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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Actinopterygii; Neopterygii; Teleostei; Ostariophysi;
Cypriniformes; Cyprinidae; Danio.
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/lab_host="DH10B (Ti-resistant)"
/lab_host="DH10B (Ti-resistant)"
/clone lib="NCI CGAP ZKid1"
/note="Organ: kīdney; Vector: pCMV-SPORT6.1; Site_1:
/note="Organ: kīdney; Vector: pCMV-SPORT6.1; Site_1:
BCORV; Site_2: NotI; Cloned unidirectionally. Primer:
Oligo dT. Average insert size 1.8 kb. Constructed by J.
Wang (Research Genetics, Invitrogen Corp) from tissue
donated by L. Zon (Harvard University). Note: this is a
NCI_CGAP Library."
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/mol_type="mRNA"
/db_xref="taxon:7955"
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                                                                                                                                                                                 Dietrich, N., Dubuque, T.
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Evolutionary Biology
Max-Planck-Institute for Developmental Biology
Spemannstr. 37-39, Tuebingen D-72076, Germany
Tel: 00497071601371
                                                                                                                                                                                                                                                                                                      1 (bases 1 to 1684)
Srinivasan,J., Sinz,W., Jesse,T., Wiggers-Perebolte,L., Jansen,K.,
Buntjer,J., van der Meulen,M. and Sommer,R.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     genomic survey sequence. CG754259
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                                                                                                                                                                                                 Contact: Sommer RJ
                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Nematoda; Chromadorea; Diplogasterida; Neodiplogasteridae; Pristionchus.
                                                                                                                                                                                                                                                                                                                                                                                              Pristionchus pacificus
Pristionchus pacificus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      CG754259.1 GI:37979569
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4444 Forest Park Parkway, Box 8501, Tel: 314 286 1800
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Location/Qualifiers
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                                 1. .1684
                                                Location/Qualifiers
/organism="Pristionchus pacificus"
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /dev_stage="19.5 dpc total fetus"
/lab_host="DH10B (ampicillin resistant)"
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/db_xref="taxon:10090"
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Pred. No.
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/strain="California"

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AK009491/c
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                                                                               Group Phase I & II Team.
Analysis of the mouse transcriptome of 60,770 full-length cDNAs
Nature 420, 563-573 (2002)
6 (bases 1 to 2005)
                                                                                                                                                                                                                                                                                                                                                                        Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Konno, H., Akiyama, J., Nishi, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Okazaki, Y., Muramatsu, M., Inoue, Y., Kira, A. and Hayashixaki, Y. RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10 (10), 1617-1630 (2000)
  Adachi,J., Aizawa,K., Akahira,S.,
Arakawa,T., Bono,H., Carninci,P.,
Furuno,M., Hanagaki,T., Hara,A., H
Hiraoka,T., Hori,F., Imotani,K., J
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MUS MUSCUlus adult male tongue CDNA, RIKEN full-length enriched
library, clone:2310024D23 product:CDNA FLJ32015 FIS, CLONE
NTONG1000052, WEAKLY SIMILAR TO RATTUS NORVEGICUS KELCH RELATED
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Meth. Enzymol. :
99279253
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                       The FANTOM Consortium and the
                                                                                                                                                                                                                                  Nature
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Mammalia; Eutheria; Rodentia;
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AK009491.1 GI:12844320
                                                                                                                                                                                                                                                      Functional annotation
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                                                                                                                                                                                                                                                                            Consortium.
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/clone lib="Ppa EcoRI BAC Library"
/note="The library was generated by a partial digest
the genomic DNA with EcoRI and cloning into the BAC
vector."
                                                                                                                                                                                                                                annotation of a 685-690 (2001)
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Pred. No. 1.3e+02;
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, Akimura,T., Arai,A., Ao, Fukuda,S., Fukunishi,Y., Hayatsu,N., Hiramoto,K., Ishii,Y., Itoh,M., Izawa
                                                                                                                                                                                       Genome
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    Izawa, M.,
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> AAAGCCACCCAAGGCA Conservative

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1765

Matches Best Query Match

Local

Similarity

100.0%;

Score 16; Pred. No.

1.3e+02; DB 3;

Length 2005;

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Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M. Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C. Saito, H., Saito, R., Sakai, C., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yanamura, T., Yasunishi, A., Yoshida, K., Yoshida, K., Yanamura, T., Yasunishi, A., Yoshida, K., Yoshida, Y., Tayama, T., Yanamura, T., Yasunishi, A., Yoshida, K., Yoshica, W., Wayanatta, M., and Wayanashia, M., Yoshida, K., Yoshica, W., Wayanatta, M., and Wayanashia, M., Yoshida, K., Yoshica, W., Wayanatta, M., and Wayanashia, M., Yoshida, K., Yoshica, W., Wayanatta, M., Yoshida, K., Yoshica, W., Wayanatta, M., Yashida, K., Yoshida, K., Yoshida, K., Yoshica, W., Wayanatta, M., Yoshida, K., Yoshica, W., Wayanatta, M., Yoshida, K., Yoshida, K., Yoshida, Y., Yanamura, Yashina, Yashina, Yashina, Y., Yanamura, Yashina, Y., Yanamura, Yashina, Y., Yanamura, Yashina, Yashina, Yashina, Y., Yanamura, Yashina, Y., Yanamura, Yashina, Yashina
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Encyclopedia Project of Genome Exploration Research Group in Ri
Genomic Sciences Center and Genome Science Laboratory in RIKEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Please visit our web site (http://genome.gsc.riken.jp/) details.
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                                                                                      /proteIn_id="BAB26321.1"
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/translation="MTLGLEQAEEQRLYQQTLLQDGLKDMLDHGKFLDCVVRVGEREF
PCHRLVLAACSSYFRARFLAEEDSAGEVRLCLAVCLAVCLLDCARLAVAARDFICARF
PLVARDNDFLCHSADELIAIISSDLYRVGEREAVFEAVWRWASSGDAEAQAERQRALP
PLVARDNDFLCHSADELIAIISSDLYRVGEREAVFEAVWRWASSGDAEAQAERQRALP
PLVARDNDFLCHSADELIAIISSDLRVGERELAKVQWVCDALEGRLTTLRKKKEKG
GQTARAKEANQGTEDTKAEDDEERVLPGILNDTLRFGMFLQDLIFMISEEGAVAYDPA
ANECYCASLSTQIFKHVSLVTKENQVEVAGGLFYNEDKEEDRWSAYFLQFDHLDSSW
LGMPPPLPSPRCLFGLGEALMAIYVVGGRELKDSEDSLDSVLCYDRLSFKWGESDPLPY
AVYGHTVLSHNDLVYVIGGKGKDRKCLNKMCVVDPKKEEMKELAPMQTARSLFGATUH
DGRIFVAAGVTDTGLTSSSEYYSIANNKWTSFEAFPQERSLSLVSLAATTLYALGFA
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NTONG1000052, WEAKLY SIMILAR TO RATTUS NORVEGICUS KELCH
RELATED PROTEIN 1 homolog (Homo sapiens) (SPTR [Q96MR2,
evidence: FASTY, 91.5%ID, 93.8%length, match=1329)
                                                    TLETESGELVPTELNDIWRYNEDEKKWEGVLREIAYAAGATFLPVRLNVVRLTKM"
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/clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev stage="adult"
ac -loci
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/db_xref="FANTOM_DB:2310024D23"
/db_xref="taxon:10090"
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|mol_type="mRNA"
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Exploration Research Group, RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.jp, URL:http://genome-gsc.riken.jp/, Tel:81-45-503-9222, Fax:81-45-503-9216)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Group Phase I & II Team.

Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs

Nature 420, 563-573 (2002)

6 (bases 1 to 2368)
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                                                                                                                                                                                                                                                        Adachi, J., Aizawa, K., Akimura, T., Arakawa, T., Bono, H., Carninci, P. Fukuda, S., Furuno, M., Hanagaki, T., Hara, A., Hashizume, W., Hayashida, K., Hayatsu, N., Hiramoto, K., Hiraoka, T., Hirozane, T., Hori, F., Imotani, K., Ishii, Y., Itoh, M., Kagawa, I., Kasukawa, T., Katoh, H., Kawai, J., Kojima, Y., Kondo, S., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Kondo, S., Konno, H., Kouda, M., Mishi, K., Nomura, K., Numazaki, R., Ohno, M., Ohsato, N., Okazaki, Y., Saito, R., Saitoh, H., Sakai, C., Sakai, K., Sakazume, N., Sano, H., Sasaki, D., Shibata, K., Shinagawa, A., Shiraki, T., Sogabe, Y., Tagami, M., Tagawa, A., Takahashi, F., Takaku-Akahira, S., Takada, Y., Tanaka, T., Tomaru, A., Toya, T., Yasunishi, A., Muramatsu, M., and Hayashizaki, Y.
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HTC; CAP trapper.
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High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                        Direct Submission
Submitted (16-APR-2002) Yoshihide Hayashizaki,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The FANTOM Consortium and the RIKEN Genome Exploration Research
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Functional annotation of a full-length mouse cDNA collection
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Rodentia;
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BB198017
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 231)
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BB198017 RIKEN full-length enriched, adult male amusculus cDNA clone A330105M01 3', mRNA sequence
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Location/Qualifiers
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Please visit our web site for further details.
Laboratory for Genome Exploration Research Group, RIKEN Sciences Center(GSC), Yokohama Institute The Institute of Physical and Chemical Research (RIKEN)
                                                                                     RIKEN Mouse ESTs (Konno,H., et
Unpublished (2000)
Contact: Yoshihide Hayashizaki
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                                                                                                                                                                              Hayashizaki,Y.
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2347. .2352
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/clone_Tib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="adult"
83. __1949
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/strain="057BL/60"
/strain="057BL/60"
/db_xref="FANTOM_DB:7530401G06"
/db_xref="taxon:I0090"
/clone="7530401G06"
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Carninci,P., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S.,
Sasaki,N., Okazaki,Y., Muramateu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by
trehalose and its application for the synthesis of full length
cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J.,
Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramateu,M.,
Okazaki,Y. and Hayashizaki,Y.
Automated filtration-based high-throughput plasmid preparation
system. Genome Res 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
                                                                                                                                                                                                                                                                                                                                                 138
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1 (bases 1 to 268)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                           Homo sapiens
                                                                                                                                Homo sapiens (human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="Site_1: SalI; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contributed to prepare mouse tissues. 1st strand cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="RIKEN full-length enriched, adult male spinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tissue_type="spinal cord"
dev_stage="adult"
lab_host="DH10B"
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clone="A330105M01"
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100.0%; Pred. No. 4.4e+02;
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                        Briones, M.R.,
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Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Brunstein, A., deOliveira
O'Hare, M.J., Soares, F.,
Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C. O., Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de
Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Arakawa, T., Hayatsu, N., Carninci, P., Bndo, T., Fukuda, S., Fukumishi, Y., Hara, A., Itoh, M., Hirozane, T., Hori, F., Ishii, Y., Ishikawa, J., Ishikawa, T., Itoh, M., Izawa, M., Kadota, K., Kagawa, I., Kai, C., Kawai, J., Kikuchi, N., Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kusakabe, M., Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y., Ono, T., Owa, C., Saito, H., Sakai, C., Sato, K., Sogabe, Y., Sugahara, Y., Suzuki, H., Suzuki, H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BB090939 RIKEN full-length enriched, 12 days embryo, between diaphragm region and neck Mus musculus cDNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 AAGCCACCCAAGGCA 16
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This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
Project. This can be seen in the following URL
Project. This can be seen in the following URL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rua Prof. Antonio Prudente 109, 4 andar,
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9430028F19 3', mRh
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251100-530-h08&t3=2000-11-25&t4=1)
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/clone lib="NT0170"
/note="Organ: nervous tumor; Vector: puc18; Site_1: SmaI;
Site_2: SmaI; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
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/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
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100.0%; Pr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence.
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Pred. No.
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BB309456 RIKEN full-length enriched, adult male corpora guadrigemina Mus musculus cDNA clone B230310M21 3' similar to M81342 BALB/c fibroblast growth factor receptor 3 (mFR3) mRNA, mRNA
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                                                                                                                                                                                                                                                                                                                                                     Similarity
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KIKEN Mouse ESTs (Konno,H., et al.) Unpublished (2000)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Watanabe,S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Please visit our web site (http://genome.rtc.riken.go.jp) for
                                                                                                                                                                                                                    AAAGCCACCCAAGGC 211
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ci.P., Nishiyama.Y., Westover.A., Itoh.M., Nagaoka,S.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /dev_stage="12 days embryo"
/lab_host="DH10B"
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'db_xref="taxon:10090"
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                                                                                                                                                                                                                                                                                                                                                  93.8%;
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                                                                                                                                                                                                                                                                                                                         <u>,,</u>
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Pred. No.
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3. 4.4e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: genome res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/Carninci,P., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S., Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y. Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length CDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
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Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999)
High-efficiency full-length cDNA cloning. Methods Enzymol. 303,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Arakawa, T., Konno, H., Aizawa, K., Akahira, S., Fukunishi, Y., Hara, A., Hayatsu, N., Carninci, P., Endo, T., Fukuda, S., Fukunishi, Y., Ishikawa, T., Itoh, M., Hirozane, T., Hori, F., Ishii, Y., Ishikawa, J., Ishikawa, T., Itoh, M., Izawa, M., Kadota, K., Kagawa, I., Kai, C., Kawai, J., Kikuchi, N., Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kiyosawa, H., Kojima, Y., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kaito, H., Satca, K., Shizaki, Y., Ono, T., Owa, C., Saito, H., Sakai, C., Sato, K., Shizaki, Y., Ono, T., Owa, C., Saito, H., Sakai, C., Sato, K., Shibata, K., Shibata, Y., Shigemoto, Y., Shinagawa, A., Shiraki, T., Sugahara, Y., Sugahara, Y., Sugahara, Y., Suzuki, H., Tagawa, A., Takahashi, F., Tominaga, N., Toya, T., Tsunoda, Y., Watahiki, A., Yoshiki, A., Yoshiki, A., Yoshiki, A., Yoshiki, A., Yoshiki, A., Yoshiko, M., Muramatsu, M. and
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Fax: 81-45-503-9216
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The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-
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Unpublished (2000)
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Hayashizaki, Y
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       visit our web site (http://genome.rtc.riken.go.jp) for
Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
                                                                                                                                                                                                                                                                                                                                                            /note="Site 1: Sall; Site 2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     quadrigemina"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="corpora quadrigemina"
/dev_stage="adult"
/lab_host="DH10B"
/clone_lib="RIKEN full-length enriched, adult male corpora
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Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: est@watson.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. Tel: 314 286 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Generation and analysis of 280,000 human expressed sequence tags Genome Res. 6 (9), 807-828 (1996)
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Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                      /tissue_type="pancreatic islet"
/lab host="SOUR cells (Kanamycin resistant)"
/clone lib="pancreatic Islet"
/note="organ: pancreas; Vector: pBluescript SK-; Site_1:
_corl; Site 2: XhoI; Reference: Hum Mol Gen 2, 1795 (1993)
Takeda et al. Cloned unidirectionally. Primer: Oligo dT.
_5' adaptor sequence: 5' GAATTCGGGCACGAG 3', -3' adaptor
sequence: 5' CTCGAGTTTTTTTTTTTTTTTTTT 3'"
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/mol_type="mRNA"
/db_xref="GDB:1262854"
/db_xref="taxon:9606"
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Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Dias Neto, E., Garcia Correa, R., Zago, M.A., Bordin, S., Costa, F.F.,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V.,
O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
                                                                                                                                                                                                                                                                                                                    15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome
Project. This entry can be seen in the following URL
(http://www.ludwig.org.br/scripts/gethtml2.pl?t1=CM3&t2=CM3-NT0245-
030101-599-f10&t3=2001-01-03&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rua Prof. Antonio Prudente 109, 4 andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence tags
Proc. Natl. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Simpson, A.J.
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    Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tel: +55-11-2704922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BI036238.1
                                                                                                                                                                                                                                                                                                                  Similarity 100.
L5; Conservative
                                                                                                                                                                                                                                                                      AAGCCACCCAAGGCA 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       quality sequence start: 18 quality sequence stop: 306.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           +55-11-270700
                                                                              310 bp mRNA linear
RIKEN full-length enriched, 7 days neona
cDNA clone A730045D02 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                          /note-Torgan: nervous tumor; Vector: puc18; Site 1: SmaI; Site 2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under
                                                                                                                                                                                                                                                                                                                                                                                                                          10%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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/mol_type="mRNA"
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dev_stage="Adult"
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                                           GI:8943948
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  (house mouse)
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100.0%; Pred. No.
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hes 0;
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  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: genome res@gcc.riken.jp, URL:http://genome.gsc.riken.jp/Carninci,P., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S., Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (21, 520-524 (1998)
Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J., Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M., Okazaki,Y. and Hayashizaki,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Arakawa, T., Carrinci, P., Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N., Hirozane, T., Hori, F., Ishii, Y., Ishikawa, J., Ishikawa, T., Itoh, M., Hirozane, T., Hori, F., Ishii, Y., Ishikawa, J., Ishikawa, T., Itoh, M., Izawa, M., Kadota, K., Kagawa, I., Kai, C., Kawai, J., Kikuchi, N., Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C., Kusakabe, M., Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y., Ono, T., Owa, C., Saito, H., Sakai, C., Sato, K., Shibata, Y., Shibata, Y., Shigemoto, Y., Shinagawa, A., Shiraki, T., Suzuki, H., Tagawa, A., Shiraki, A., Watanabe, S., Yamamura, T., Yamanaka, I., Yano, R., Yasunishi, A., Yokota, T., Yoshida, K., Yoshiki, A., Yoshino, M., Muramatsu, M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999) Carninci, P. and Hayashizaki, Y. High-efficiency full-length cDNA cloning. Methods Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1-7-22 Suehiro-cho,
Tel: 81-45-503-9222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Laboratory for Genome Exploration Research Group, RIKEN Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-
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RIKEN Mouse ESTS (Konno, H., et al.)
Unpublished (2000)
Contact: Yoshihide Hayashizaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    further details.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Please visit our web site (http://genome.rtc.riken.go.jp) for
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                                                                                              /note="Site 1: Sall; Site_2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cerebellum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tissue_type="cerebellum"
/dev_stage="7 days neonate"
/lab_host="DH10B"
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mol_type="mRNA"
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Score 15;
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ORGANISM
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AW921312
LOCUS
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VERSION
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TITLE
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Length 310

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RESULT 26
AI812549/c
      TITLE
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Best Local
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Matches 15; Conserva
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                                                                                            Rattus norvegicus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15,
                                                                                                                                                                                                                                                                    EST352616 Rat gene index, normalized rat, norvegicus, Bento Rattus norvegicus cDNA clone RGIHQ86 5' end, mRNA sequence.
Lee, N.H., Glodek, A., Chandra, I., Mason, T.M., Kerlavage, A.R. and Adams, M.D.
Rat Genome Project: Generation of a Rat EST
                                                                                                                                                                                 Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                               AW921312.1
                                                                                                                                                                                                                                                                                                                  AW921312
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Tel: 919-515-7800
Fax: 919-515-7801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Forest Biotechnology Group
North Carolina State University
Dept. of Forestry, NC State University, 6113 Jordan Hall,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AAAGCCACCCAAGGC 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Spermatophyta; Coniferopsi
1 (bases 1 to 323)
Whetten, R.W., Kinlaw, C.S.,
The Pine Gene Discovery Pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Pinus; Pinus.
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                                                                     (bases 1 to 328)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rosswhet@unity.ncsu.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue type="differentiating xylem" /clone Tib="Fine Lambda Zap Xylem library" /clone Tib="Fine Lambda Zap Xylem Library" /note="Vector: Lambda Zap; site 1: EcoRI; Site 2: XhoI; /note="Vector: Lambda Zap; site 1: EcoRI; Site 2: XhoI; Differentiating xylem was collected from the main stem of a 35-year old loblolly pine tree harvested during the growing season. RNA isolation and library preparation followed the methods of Allona et al., PNAS 95:9693-8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /db_xref="taxon:3352"
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mol_type="mRNA"
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em library
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o. 4.5e+02;
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Pinus taeda cDNA,
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  (REST) Catalog &
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                                           Quackenbush, J.,
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1 (bases 1 to 362)

Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Baia, G.S., Simpson, D.H., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
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Tel: (301)-838-3529
Fax: (301)-838-0508
Email: nhlee@tigr.org
This clone is available through the ATCC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          362 bp mRNA linear IL2-NT0203-271200-322-A10 NT0203 Homo sapiens cDNA, BF935524
                               This sequence was derived from the PAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=IL2&t2=IL2-NT0203-271200-322-A10&t3=2000-12-27&t4=1)
Seq_primer: puc 18 forward
                                                                                                                                  Email: asimpson@ludwig.org.br
                                                                                                                                                                                                              Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 and
                                                                                                                                                                                                                                                                                                                                                   Shotgun sequencing of the human transcriptome with ORF sequence tags
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Contact: Lee, NH
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                                                                                                                                                                           +55-11-2704922
                quality sequence stop: 324
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Bento Soares"
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/mol_type="mRNA"
/db_xref="taxon:10116"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Tel: 814 863 6413
Fax: 814 865 9131
Email: cwd3@psu.edu or jhl10@psu.edu
Email: cwd3@psu.edu or jhl10@psu.edu
The sequence provided is trimmed of vector and low quality regions.
Full sequence and original trace file are available from the Plant
Genome Network website (http://pgn.cornell.edu)
Genome-Network website (http://pgn.cornell.edu)
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/Glone lib="Csa02"
/Glone lib="Csa02"
/note="Vector: pBluescript SK (+/-); Site 1: EcoRI;
Site 2: Xhol; This is a directionally cloned,
non-normalized library. This library has been generated by
the Ploral Genome Project (FGP). The Floral Genome Project
is funded by NSF's Brant Genome Program
(DBI-0115694). More information about the project can be
obtained at http://fgp.bio.psu.edu"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /cione lib="NT0203"
/cione lib="NT0203"
/note="Organ: nervous tumor; Vector: puc18; Site 1: Smal;
/note="Torgan: nervous tumor; Vector: puc18; Site 2: Smal; A mini library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the puc 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                    /clone="csa02-2ms3-g01"
/tissue_type="female flot
/dev_stage="<1mm buds"
/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Cucumis sativus"
/mol_type="mRNA"
/db_xref="taxon:3659"
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/db_xref="taxon:9606"
/dev_stage="Adult"
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CB691996
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CE698527/c
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                                                                                                                                                                        394
tigr-gss-dog-17000368753766 E
genomic survey sequence.
CE698527
                                                                                                                                                                                                                                                                                                                                          15;
                                    Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleost.
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
1 (bases 1 to 394)
1 (bases 1 to 394)
1 (kirkness, E.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K., Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and Venter, J.C.
                                                                                                                                                                                                                                                                                                                 μ
           The dog genome: survey sequencing and comparative analysis Science 301 (5641), 1898-1903 (2003)
                                                                                                                                  Canis familiaris (dog)
                                                                                                                                                  GSS
                                                                                                                                                               CE698527.1 GI:37017751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             One Amgen Center Drive, Thousand Oaks,
Tel: 805 447-4881
Plate: 00067 row: e column: 11.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Amgen EST Program.
Amgen Rat EST Program
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CB691996 375 bp mRNA
AMGNNUC:SRPG2-00067-E11-A srpg2 (10238)
clone srpg2-00067-e11 5', mRNA sequence.
CB691996
CB691996 GB: 29749143
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ilarity 100.0%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                            gland brain region"
                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="peneal gland brain"
/clone_lib="srpg2 (10238)"
/note="Vector: psporT1; Site_1: Sall; Site_2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/db_xref="taxon:10116"
/clone="srpg2-00067-e11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Rattus norvegicus"
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100.0%; Pr
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Pred. No.
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Pred. No.
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Бод
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3. 4.5e+02;
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Library Canis familiaris genomic,
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(10238) Rattus
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                                                                                         Euteleostomi;
Canis.
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CE047936/c
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tigr-gss-dog-17000357497477 D
genomic survey sequence.
CE047936
                                                                                                                                                                                                                                                                         Contact: Kirkness EF
The Institute for Genomic Research
Department of Eukaryotic Genomics,
Rockwille, MD 20850, USA
Tel: 301-338-0200
Fax: 301-838-0208
                                                                                                                                                                                                                                                                                                                                                                                                               The dog genome: survey sequencing and Science 301 (5641), 1898-1903 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                               Kirkness, E.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K., Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and Venter, J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
1 (bases 1 to 401)
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Canis familiaris
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Contact: Kirkness EF
Contact: The Institute for Genomic Research
Department of Eukaryotic Genomics, TIGR,
Rockville, MD 20850, USA
Tel: 301-838-0200
Fax: 301-838-0208
                                                                                                                                                                                                                                                         Email: ekirknes@tigr.org
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                 Similarity
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   Conservative
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                                                                                /organism="Canis familiaris"
/mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
/clone_lib="Dog_Library"
/note="Site_1: BstXI; Libraries we peripheral Blood"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone_lib="Dog Library"
/note="Site 1: BstXI; Libraries
peripheral blood"
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/mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
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100.0%; Pr
                93.8%;
Score 15; DB; Pred. No. 4.5
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Library Canis familiaris
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                                Length 401;
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Canis.
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ORGANISM

Homo sapiens

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BI536031
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AA053186
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                                                                                                                                                                                                                        2 AAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, US
Tel: 402 762 4366
Fax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases 1 to 408)
Smith, T.P.L., Grosse, W.M., Freking, B.A., Roberts, A.J., Stone, R.T.
Casas, E., Wray, J.E., White, J., Cho, J., Fahrenkrug, S.C.,
Bennett, G.L., Heaton, M.P., Laegreid, W.W., Rohrer, G.A.,
Chitko-McKown, C.G., Pertea, G., Holt, I., Karamycheva, S., Liang, F.,
Quackenbush, J. and Keele, J.W.
Sequence evaluation of four pooled-tissue normalized bovine cDNA
libraries and construction of a gene index for cattle
Genome Res. 11 (4), 626-630 (2001)
                                                              AAO53186 417 bp mRNA linear EST 13-SEP-1996 zl72804.rl Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:510126 5' similar to gb:D13748 EUKARYOTIC INITIATION FACTOR 4A-I (HUMAN); mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Plate: 114 row: C column: 7
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
v0.980904.e. Vector identified by cross_match with the -minscore
and -minmatch 12 options.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
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EST.
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390188 MARC 4BOV Bos taurus cDNA 5',
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sapiens (human)
                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Bos taurus"
/mol type="mRN"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                        /clone lib="MARC 4BOV"
/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2: SalI;
Library made from pooled tissue from day 20 and day 40
embryos."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                    93.8%;
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3. 4.5e+02;
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REFERENCE
AUTHORS
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JOURNAL
COMMENT
                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
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                                                                                                                                                                                                                                                                                                                        RESULT 35
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Query Match
Best Local :
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                                                                                                                                                                                                                                                                                     BQ198462
419 bp mRNA linear EST 07-MAY-2003
NXLV131 E01 F NXLV (Nsf Xylem Late wood Vertical) Pinus taeda cDNA
clone NXLV131 E01 5' similar to Arabidopsis thaliana sequence
At5947030 ATP synthase delta' chain, mitochondrial precursor
(sp[Q96252) see http://mips.gsf.de/proj/thal/db/index.html, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 417)

Hillier, L., Lennon, G., Becker, M., Bonaldo, M.F., Chiapelli, B., Chiseoe, S., Dietrich, N., DuBuque, T., Favello, A., Gish, W., Chiseoe, S., Hultman, M., Kucaba, T., Lacy, M., Le, M., Le, N., Laka, M., Morris, M., Parsons, J., Prange, C., Rikkin, L., Mardis, E., Moore, B., Morris, M., Soares, M.B., Tan, F., Thierry-Meg, J., Trevaskis, E., Underwood, K., Wohldmann, P., Waterston, R., Wilson, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Generation and analysis of 280,000 human expressed sequence tags
Genome Res. 6 (9), 807-828 (1996)
97044478
                                                                                                                                                        Pinus taeda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 High quality sequence stop: 404.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: -28M13 rev2 from Amersham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Contact: Sederoff,
              Molecular Basis of Wood Unpublished (2000)
                                                             Sederoff, R.
                                                                                                                                   Eukaryota; Viridiplantae;
                                                                                                                                                                                                                        BQ198462
BQ198462.1 GI:20384424
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Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and Marra, M.
                                                                                                         Spermatophyta;
                                                                                                                                                                         Pinus taeda (loblolly pine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGCCACCCAAGGC 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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/mol_type="mRNA"
/db_xref="GDB:3813459"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:9606"
/clone="IMAGE:510126"
                                                                                  1 to 419)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.8%; Suc
100.0%; Pr
                                                                                                         idiplantae; Streptophyta; Embryophyta; Coniferopsida; Coniferales; Pinaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15; DB 1; Ler
s; Pred. No. 4.5e+02;
                                          Formation
                                            in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 417;
                                          Pine Megagenome
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Pinus; Pinus
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RESULT 36
AA147417
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DEFINITION
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JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246 AAAGCCACCCAAGGC 232
            Email: est@watson.wustl.edu
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 423)
Hillier, L., Lennon, G., Becker, M., Bonaldo, M.F., Chiapelli, B., Chissoe, S., Dietrich, N., DuBuque, T., Favello, A., Gish, W., Hawkins, M., Hultman, M., Kucaba, T., Lacy, M., Le, M., Le, N., Mardis, E., Moore, B., Morris, M., Parsons, J., Prange, C., Rifkin, L., Rohlfing, T., Schellenberg, K., Soares, M.B., Tan, F., Thierry-Meg, J., Trevaskis, E., Underwood, K., Wohldmann, P., Waterston, R., Wilson, R. and Marra, M.
                                                                                                                                         Washington University School of Medicine 4444 Forest Park Parkway, Box 8501, St. 1
                                                                                                                                                                                                    Contact: Wilson RK
                                                                                                                                                                                                                                                                       Generation and analysis of 280,000 human expressed sequence tags Genome Res. 6 (9), 807-828 (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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423 bp mRNA linear EST 06-AUG-1:
z039e07.rl Stratagene endothelial cell 937223 Homo sapiens cDNA
clone IMACE:589284 5' similar to gb:D13748 EUKARYOTIC INITIATION
FACTOR 4A-I (HUMAN);, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 AAAGCCACCCAAGGC 15
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Fax: 919 515 7801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
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North Carolina State Un
840 Main Campus Drive,
NC 27695, USA
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Seq primer: T3
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Please see http://web.ahc.umn.edu/biodata/nsfpine/ fi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                             314 286 1800
314 286 1810
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Length: 1549
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="NXIV (Nsf Xylem Late wood Vertical)"
/note="Vector: pTriplEx; Site 1: EcoRI; The library is
from late (summer-August) wood, taken from below the crown
of a 20 year old tree. The harvested xylem tissue was on
the the cusp between transitional and mature wood. NOTE:
The sequences contain a 'cDNA adapter' between the EcoRI
site and the start of the EST. The adapter sequence is
'AATTCGGCCATTATGGCC'."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
(strain="Coastal plain loblolly pine from North Carolina"
/db_xref="taxon:3352"
/clone="NXLV131_E01"
/tissue_type="primary xylem"
/dev_stage="late wood"
/lab_host="XL1-Blue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Pinus taeda"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
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; Pred. No.
  Std Error: 0.00
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.5e+02;
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                                                                                                                                              Louis, MO 63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 419;
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Best Local :
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                                                                                                                                                                                                        source
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                                                                                                                                                                                                                                                                          Email: mmpratt@uga.edu

Library constructed by Dr. Yutaka Suzuki and Dr. Sumio Sugano in

the Human Genome Center, University of Tokyo Institute of Medical

Science; plant material and RNA prepared at Texas A & M University;

sequencing done in the Laboratory for Genomics and Bioinformatics,

University of Georgia. Sequence ends have been trimmed to exclude

vector and regions below Phred quality 16. Three-prime sequences

are presented as their reverse complement and have been trimmed to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Cordonnier-Pratt MM
Laboratory for Genomics and Bioinformatics
The University of Georgia, Department of Plant Biology
Plant Sciences Building, Rm. 2502, Athens, GA 30602-7271,
Tel: 706 542 1860
Fax: 706 583 0210
                                                                                                                                                                                                                                                      Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cordonnier-Pratt,M.-M., Suzuki,Y., Sugano,S., Klein,R.R., Liang,C., Sun,F., Sullivan,R., Lim,S., Eastman,A. and Pratt,L.H.
An EST database from Sorghum: acid- and alkaline-treated roots
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACCAD clade; Panicoideae; Andropogoneae; Sorghum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CN125873 448 bp mRNA linear EST RHOH1 13 G11.g1 A002 Acid- and alkaline-treated roots S bicolor cDNA clone RHOH1 13 G11 A002 5', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sorghum bicolor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sorghum bicolor (sorghum)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CN125873.1
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                                                                                                                                                                                                                                                      primer:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to 448)
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/mol type="mRNA"
/cultivar="BTX623"
/db xref="taxon:4558"
/clone="RDH10B-T1 phage-resistant E. (
/lab host="DH10B-T1 phage-resistant E. (
/clone_lib="Acid- and alkaline-treated )
/note="Organ: Root; Vector: pME188-FL3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /dev_stage="umbilical vein, 1 passage"
/lab_host="SOLR (kanamycin resistant)"
/clone lib="Stratagene endothelial cell 937223"
/note="Vector: pBluescript SK-; Site_1: EcoRI; Site_2: XhoI; Cloned unidirectionally. Primer: Oligo dT.
Umbilical vein endothelial cells, passaged once. Average insert size: 1.0 kb; Uni-ZAP XR Vector; ~5' adaptor sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor sequence: 5'
                                                                                                                                                        /organism="Sorghum bicolor"
/mol_type="mRNA"
                                                                                                                                                                                                                               Locat
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/mol_type="mRNA"
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                                                                                                                                                                                                                                                   Sug5 (CTTCTGCTCTAAAAGCTGCG).
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4.5e+02;
hes 0; Indels
     roots"; Site_1:
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VERSION
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CA902085
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bui,A.Q., Le,B.H., Weterings,K., Bi,Y.-P., Choi,J.-S., McElroy,K.E., Choi,P.S., Harada,J.J., Fischer,R.L. and Goldberg,R.B.
Gene Activity in Different Regions of a Post-Fertilization Plant Embryo, by EST Analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Department of Molecular, Cell, & Developmental Biology University of California, Los Angeles 621 Charles E. Young Drive South, Los Angeles, CA 9009: Tel: 310 825 3270
Fax: 310 825 8201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CA902085 455 bp mRNA linear PCS04956 Scarlet Runner Bean Suspensor Region Trip coccineus cDNA 5' similar to Nucleoid DNA-binding
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;

rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (2002)
Contact: Goldberg, R.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Phaseolus coccineus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ll: bobg@ucla.edu
primer: 5' TriplEx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 455)
/Gulfivar="Hammond's Dwarf Scarlet"
/db_xref="taxon:3886"
/dev_stage="6-days post-pollination"
/dev_stage="6-days post-pollination"
/clone_lib="Scarlet Runner Bean Suspensor Region TriplEx2"
/clone_lib="Scarlet Runner Bean Suspensor Region TriplEx2"
/note="Organ: Suspensor Region of Globular-Stage Embryos;
/rector: TriplEx2; Site_1: SfilA; Site_2: SfilB; Suspensor
regions were micro-dissected from globular-stage embryos
six days after pollination from greenhouse-grown plants
[Weterings et al., Plant Cell 13, 2409-2425 (2001)].
Double-stranded cDNA was synthesized from suspensor mRNA
using the SMART cDNA Library Construction Kit according to
the manufacturer (Clontech). The suspensor cDNA fragments
were directionally ligated into the Sfil restriction site
of the lambda TriplEx2 vector (Clontech), and the
recombinant cDNAs were transformed into E. coli XL1-Blue
cells (Clontech). Suspensor cDNA plasmids used for
directional sequencing were obtained by in vivo excision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                site 2: XhoI; The library was prepared from polyA+ RNA from 8-day-old roots harvested from BTx623 sorghum seedlings grown in hydroponic culture. HCI was added to a pH of 3.0 to some seedlings, KOH to a pH of 9.0 for others. Roots were harvested 3, 12 and 27 hr after addition and pooled for RNA preparation. Double-stranded cDNA was cloned unidirectionally into different DraIII sites of the pME18S-FL3 vector (5-prime DraIII site is CACTGTGTG, 3-prime DraIII site is CACTGTGTG, 3-prime DraIII site is CACCATGTG). XhoI excises the cDNA insert."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Phaseolus coccineus"
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ion TriplEx2 Phaseolus
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AA205003
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15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information. Seq primer: -28M13 rev2 from Amersham High quality sequence stop: 326.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hillier, L., Lennon, G., Becker, M., Bonaldo, M.F., Chiapelli, B., Chiasoe, S., Dietrich, N., DuBuque, T., Favello, A., Gish, W., Hawkins, M., Hultman, M., Kucaba, T., Lacy, M., Le, N., Le, N., Mardis, E., Moore, B., Morris, M., Parsons, J., Prange, C., Rifkin, L., Rohlfing, T., Schellenberg, K., Soares, M.B., Tan, F., Thierry-Meg, J., Trevaskis, E., Underwood, K., Wohldmann, P., Waterston, R., Wilson, R. and Marra, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Generation and analysis of 280,000 human expressed sequence tags
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tel: 314 286 1800
Fax: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Washington University School of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Wilson RK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97044478
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                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                       organism="Homo sapiens"
/mol type="mRN"
/db_xref="GDB:5217434"
/db_xref="taxon:9606"
/clone="IMAGE:647182"
                                                                                                                                                                       /dev stage="Ntera-2/RA neuroepithelial cells"
/lab_host="SOLR (kanamycin resistant)"
/clone_lib="Stratagene neuroepithelium (#937231)"
/note="Vector: pBluescript SK-; Site_1: EcoRI; Site_2:
/note="Vector: pBluescript SK-; Site_1: EcoRI; Site_2:
XhoI; Cloned unidirectionally. Primer: Oligo dT. NT2
cells (Ntera-2/cl.Dl) induced with Retinoic Acid for 24
hours. Average insert size: 1.5 kb; Uni-ZAP XR Vector; ~5'
adaptor sequence: 5' GAATTCGGCACGAG 3' ~3' adaptor
sequence: 5' CTCGAGTTTTTTTTTTTTTTTTTT 3'"
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                                                                                                 4.5e+02;
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AUTHORS
Search completed: March 31, 2005, 14:44:31 Job time: 1707 secs
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JOURNAL
                                                                                                                                                                                                           Query Match 93.8%; Score 15; DB 8; Length 495
Best Local Similarity 100.0%; Pred. No. 4.5e+02;
Matches 15; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                       370 AAGCCACCCAAGGCA 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: szhao@tigr.org
Clones are derived from the rat BAC library CHORI-230
(http://www.chori.org/bacpac/rat230.htm). For BAC library
(http://www.chori.org/bacpac/rat230.htm). For BAC library
availability, please contact Pieter de Jong (pdejong@mail.cho.org).
Clones may be purchased from BACPAC Resources
(http://www.chori.org/bacpac/or ering_information.htm). BAC end
page: http://www.tigr.org/tdb/bac_ends/rat/bac_end_intro.html
page: 485 row: E column: 5
                                                                                                                                                2 AAGCCACCCAAGGCA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BZ180217 495 bp DNA linear GSS 11-OCT-2002 CH230-485E5.TJ CHORI-230 Segment 2 Rattus norvegicus genomic clone CH230-485E5, genomic survey sequence.

BZ180217 BZ180217.1 GI:23824776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Shaying Zhao
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The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA
Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Riggs,F., de Jong,P. and Fraser,C.M.
Rat BAC End Sequences from Library CHORI-230 MboI segment Unpublished (1999)
Other_GSS: CH230-485E5.TV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seq primer: SP6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 495)
Zhao,S., Shetty,J., Shatsman,S., Tsegaye,G., Geer,K.,
Zhao,S., Shetty,J., Shatsman,S., Tsegaye,G., Geer,K.,
Shvartsbeyn,A., Gebregeorgis,E., Overton,L., Russell,D., Chen,D.,
Riggs,F., de Jong,P. and Fraser,C.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus
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/clone lib="CHOXI-230 Segment 2"
/clone="Vector: pTARBAC1.3; Site_1: MboI; Site_2: MboI;
/note="Vector: pTARBAC1.3; Site_1: MboI; Site_2: MboI;
CHORI-230 Rat (BN/SSNHsd/MCW) BAC library produced by
Pieter de Jong"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                   Length 495;
                                                                                                                                                                                                              0;
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